NEW YORK CITY RETIREMENT SYSTEMS
ACtuarial audit and related review services
INDEPENDENT ACTUARY'S STATEMENT

Prepared by:
Gabriel, Roeder, Smith \& Company
October 2015

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The Honorable Scott M. Stringer
Comptroller of the City of New York
One Centre Street
New York, New York 10007

## Re: Independent Actuary's Certification Regarding the Funding of the Five ActuariallyFunded New York City Retirement Systems ("NYCRS")

Dear Comptroller Stringer:
Gabriel, Roeder, Smith \& Company (GRS) was retained to serve as Independent Actuary under Section 96 of the New York City Charter and provide other services related to the review of the funding of the following five actuarial pension funds (collectively NYCRS or the Systems):

- New York City Employees’ Retirement System (NYCERS)
- Teachers' Retirement System of the City of New York (TRS)
- Board of Education Retirement System of the City of New York (BERS)
- New York City Police Pension Fund (POLICE)
- New York Fire Department Pension Fund (FIRE)

GRS was required to conduct two consecutive biennial actuarial engagements, encompassing the following:

- Biennial Contribution Audits of the computed employer contributions for each System in NYCRS for fiscal years 2012 and 2014 (including an audit of actuarial accrued liabilities and actuarial valuation of assets);
- Biennial Experience Studies for the periods ending June 30, 2011 and June 30, 2013, for each System in NYCRS;
- Two Administrative Reviews of the data gathering and maintenance practices of the Office of the Actuary (OA) and each System in NYCRS (one review corresponding with each Contribution Audit); and
- Two Independent Actuarial Statements (one for each engagement); GRS, as the independent actuarial auditor, will submit a statement that will briefly describe the scope of the entire engagement, will review the entire engagement and comment on the financial condition and financing progress and policies of each System, and certify that the Systems are being funded on sound actuarial, financial, and legal bases.

This report constitutes the deliverable with respect to the Independent Actuarial Statement for the second engagement. The purpose of this report is to:

- Summarize the findings from the Contribution Audit, the Experience Study and the Administrative Review from the second engagement; and
- Provide each System with a certification of the findings of the second engagement.

The Actuarial Contribution Audit provides an independent verification of the computation of employer pension contributions - including the methodologies used therein and their conformity to law, the assumptions adopted by the Systems, and generally accepted actuarial principles. The Experience Studies review and comment on the continued appropriateness of the actuarial assumptions used in the computations of employer contributions and identify areas where assumptions may be improved. The Administrative Review evaluates the actuarial data gathering process to ensure that the data collection methods produce sufficiently accurate data for valuation and Experience Study purposes. Thus the three components of the assignment provide assurance that:

- Assets and liabilities are calculated accurately, using appropriate actuarial assumptions and methods, and are based on sufficient and accurate census data; and
- Employer contribution amounts are computed in conformity with all applicable financial, actuarial and legal requirements.


## GRS' Conclusions

Administrative Review:
GRS has concluded that the data used by the OA to determine employer pension contributions for FY 2014 and develop actuarial assumptions was sufficiently complete and accurate for those purposes.

## Contribution Audit:

Through a valuation replication and review of individual test life cases, GRS has confirmed that the OA's calculations of the FY 2014 employer contribution for all Systems were reasonable and appropriate.

## Experience Study:

Although actual experience did differ from assumptions in some instances, GRS has concluded that the assumptions used in the June 30, 2012 (Lag) Actuarial Valuations were reasonable.

Accordingly, GRS is pleased to certify that the Systems are being funded in conformity with all applicable actuarial, financial and statutory requirements.

As part of the Experience Study, GRS observed some differences between current assumed activity and actual activity during the study period. As a result, we recommend the OA consider following changes to the assumptions:

- Lower Investment Return Assumption;
- Lower rates of mortality;
- Recognition of improvement in mortality through the use of generational tables;
- Adjustments in assumed rates of turnover, disability and retirement; and
- Adjustments to the pay increase and overtime assumptions.

The recommended changes in economic and mortality assumptions are similar for all the Systems. The recommendations for the other assumptions vary by System.

## Organization of this Report

| Section A | Independent Actuary's Statement for the New York City Employees' <br> Retirement System (NYCERS) |
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| Section B | Independent Actuary's Statement for the Teachers' Retirement <br>  <br> System of the City of New York (TRS) |
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We would like to thank the Office of the Comptroller, the Office of the Actuary and the staff of each of the Systems for hosting our visits, supplying the information on which this study was based and reviewing initial drafts. This report could not have been completed without their assistance. They (all) were accommodating, informative and helpful.

James D. Anderson, Joseph P. Newton and Daniel J. White are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully Submitted,


Kenneth G. Alberts
Project Manager and Contribution Audit Director


Dames D. Anderson, FSA, EA, MAAA
Alternate Project Manager and Peer Review Actuary


Joseph P. Newton, FSA, EA, MAAA
Alternate Project Manager and Experience Study Director


Daniel J. White, FSA, EA, MAAA
Experience Study Director

## SECTION A

INDEPENDENT ACTUARY'S STATEMENT FOR THE NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM (NYCERS)

## Independent Actuary's Statement for the New York City Employees' Retirement System (NYCERS)

Gabriel, Roeder, Smith \& Company (GRS) was retained by the Comptroller to serve as Independent Actuary under Section 96 of the New York City Charter and provide other services related to the review of the funding of the NYCERS.

GRS has completed the following:

- A Contribution Audit of the computed employer contributions for NYCERS for fiscal year 2014 (including an audit of actuarial accrued liabilities and actuarial valuation of assets);
- Experience Studies for the 4 -year and 10-year periods ending June 30, 2013 for NYCERS; and
- An Administrative Review of the data gathering and maintenance practices of the Office of the Actuary (OA) and NYCERS.

Based on the Contribution Audit, the Experience Studies, and the Administrative Review for NYCERS, GRS certifies that NYCERS is being funded in accordance with Standards of Practice prescribed by the Actuarial Standards Board and in conformity with the applicable New York State and New York City Statutes. Assuming continued funding of NYCERS by the City/Obligors on the basis used in the June 30, 2012 (Lag) Actuarial Valuation, we believe the City's funding objective (that these statutorily required contributions, together with member contributions and assumed investment income will be sufficient to pay benefits when due) will be achieved.

## Employer Contribution Audit for Fiscal Year 2014

GRS has performed an actuarial audit of the June 30, 2012 (Lag) Actuarial Valuation which develops the employer contributions for Fiscal Year 2014. This actuarial audit included:

- A review of actuarial methods and assumptions;
- A replication of the valuation (using GRS software) to verify the computations of Actuarial Value of Assets, Actuarial Liabilities and Employer Contributions; and
- A review of several test life cases to validate the programming and software used by the OA to perform the valuation.

GRS has concluded the following:

- Actuarial methods and assumptions adopted by the Board and used in the June 30, 2012 (Lag) Actuarial Valuation were reasonable, appropriate and in accordance with generally accepted actuarial standards of practice, including:
o The use of the Entry Age Actuarial Cost Method;
o The Actuarial Asset Valuation Method; and
o The demographic and economic assumptions.
- The mathematical computations performed by the OA in the June 30, 2012 (Lag) Actuarial Valuation were appropriate and correct and GRS was able to independently replicate the computation of the employer contributions within less than $2 \%$; and
- In GRS' review of test cases, GRS was able to confirm that the software used by the OA was generally programmed correctly and based on the methods and assumptions adopted by the Board, encoded in Statute or determined by the Actuary, as appropriate (any exceptions were minor, did not materially affect the results and were identified for the OA to review).

Additional details along with GRS’ suggestions for improving the valuation can be found in our Actuarial Audit of Employer Contributions report for Fiscal Year 2014 dated October 23, 2015.

## Administrative Review

GRS has completed the Administrative Review, which included:

- A meeting with OA staff to discuss the data collection process and the benefit calculation/certification process;
- A meeting with NYCERS staff to discuss the data collection process and the benefit calculation/certification process; and
- A walk through NYCERS to review security measures taken to ensure the security of sensitive member data.

GRS has concluded the following:

- The data gathering process used by the OA produced data that was sufficiently accurate for use in the Actuarial Valuation and Experience Study;
- Transmission and storage of sensitive member data is done in a secure and appropriate manner; and
- Communications between the OA and NYCERS are on excellent terms and have fostered a cooperative and productive relationship.

Additional details along with GRS' suggestions for improving the data collection process can be found in our Administrative Review report dated October 9, 2015.

## Experience Study

GRS has completed the Experience Study for the 4-year and 10-year periods ending June 30, 2013. This process involved collecting the Experience Study database developed by the prior Independent Actuary, updating and maturing the data based on the valuation data used in the June 30, 2012 and June 30, 2013 actuarial valuations and comparing assumed experience to actual experience. Although the findings indicate that several assumptions differed from experience, GRS believes that:

- The economic assumptions used for the NYCERS June 30, 2012 (Lag) valuation are reasonable and appropriate; and
- The demographic assumptions used are reasonable and appropriate.

GRS recommends the OA consider changes in the following areas for future valuations:

- Reduce Investment Return Assumption
- Reduce rates of mortality and update the provision for future mortality improvement
- Salary Increase Assumptions
o For General group: decrease the general portion of the salary increase assumption
o For other groups: increase the general portion of the salary increase and flatten the merit portion
o OA should temper the above based on the increases called for in the new labor agreements
- Withdrawal
o Increase assumed withdrawals to half way between current assumption and actual experience
o Further increases will be likely in next study
- Disability: recommend minor changes based on each group's experience
- Retirement: reflect delays in retirement as seen in data (and also nationwide)

Additional details can be found in our Experience Study report dated October 23, 2015.

James D. Anderson, Joseph P. Newton and Daniel J. White are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully Submitted,


Kenneth G. Alberts
Project Manager and Contribution Audit Director


James D. Anderson, FSA, EA, MAAA
Alternate Project Manager and Peer Review Actuary

ph P. Newton, FSA, EA, MAAA
Alternate Project Manager and Experience Study Director


Daniel J. White, FSA, EA, MAAA
Experience Study Director
10/23/2015

## SECTION B

INDEPENDENT ACTUARY'S STATEMENT FOR THE TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK (TRS)

## Independent Actuary's Statement for the Teachers' Retirement System of the City of New York (TRS)

Gabriel, Roeder, Smith \& Company (GRS) was retained by the Comptroller to serve as Independent Actuary under Section 96 of the New York City Charter and provide other services related to the review of the funding of the TRS.

GRS has completed the following:

- A Contribution Audit of the computed employer contributions for TRS for fiscal year 2014 (including an audit of actuarial accrued liabilities and actuarial valuation of assets);
- Experience Studies for the 4-year and 10-year periods ending June 30, 2013 for TRS; and
- An Administrative Review of the data gathering and maintenance practices of the Office of the Actuary (OA) and TRS.

Based on the Contribution Audit, the Experience Studies, and the Administrative Review for TRS, GRS certifies that TRS is being funded in accordance with Standards of Practice prescribed by the Actuarial Standards Board and in conformity with applicable New York State and New York City Statutes. Assuming continued funding of TRS by the City/Obligors on the basis used in the June 30, 2012 (Lag) Actuarial Valuation, we believe the City's funding objective (that these statutorily required contributions, together with member contributions and assumed investment income will be sufficient to pay benefits when due) will be achieved.

## Employer Contribution Audit for Fiscal Year 2014

GRS has performed an actuarial audit of the June 30, 2012 (Lag) Actuarial Valuation which develops the employer contributions for Fiscal Year 2014. This actuarial audit included:

- A review of actuarial methods and assumptions;
- A replication of the valuation (using GRS software) to verify the computations of Actuarial Value of Assets, Actuarial Liabilities and Employer Contributions; and
- A review of several test life cases to validate the programming and software used by the OA to perform the valuation.

GRS has concluded the following:

- Actuarial methods and assumptions adopted by the Board and used in the June 30, 2012 (Lag) Actuarial Valuation were reasonable, appropriate and in accordance with generally accepted actuarial standards of practice, including:
o The use of the Entry Age Actuarial Cost Method;
o The Actuarial Asset Valuation Method; and
o The demographic and economic assumptions.
- The mathematical computations performed by the OA in the June 30, 2012 (Lag) Actuarial Valuation were appropriate and correct and GRS was able to independently replicate the computation of the employer contributions within $4 \%$; and
- In GRS' review of test cases, GRS was able to confirm that the software used by the OA was generally programmed correctly and based on the methods and assumptions adopted by the Board, encoded in Statute or determined by the Actuary, as appropriate (any exceptions were minor, did not materially affect the results and were identified for the OA to review).

Additional details along with GRS' suggestions for improving the valuation can be found in our Actuarial Audit of Employer Contributions report for Fiscal Year 2014, dated October 23, 2015.

## Administrative Review

GRS has completed the Administrative Review, which included:

- A meeting with OA staff to discuss the data collection process and the benefit calculation/certification process;
- A meeting with TRS staff to discuss the data collection process and the benefit calculation/certification process; and
- A walk through TRS to review security measures taken to ensure the security of sensitive member data.

GRS has concluded the following:

- The data gathering process used by the OA produced data that was sufficiently accurate for use in the Actuarial Valuation and Experience Study;
- Transmission and storage of sensitive member data is done in a secure and appropriate manner; and
- Communications between the OA and TRS are on excellent terms and have fostered a cooperative and productive relationship.

Additional details along with GRS’ suggestions for improving the data collection process can be found in our Administrative Review report dated October 9, 2015.

## Experience Study

GRS has completed the Experience Study for the 4-year and 10-year periods ending June 30, 2013. This process involved collecting the Experience Study database developed by the prior Independent Actuary, updating and maturing the data based on the valuation data used in the June 30, 2012 and June 30, 2013 actuarial valuations and comparing assumed experience to actual experience. Although the findings indicate that several assumptions differed from experience, GRS believes that:

- The economic assumptions used for the TRS June 30, 2012 (Lag) valuation are reasonable and appropriate; and
- The demographic assumptions are reasonable and appropriate.

GRS recommends the OA consider changes in the following areas for future valuations:

- Reduce Investment Return Assumption
- Reduce rates of mortality and update the provision for future mortality improvement
- Withdrawal
o Increase assumed withdrawals to half way between current assumption and actual experience
o Further increases will be likely in next study
- Disability: substantially increase rates of both ordinary and accidental disability
- Retirement: reflect delays in retirement as seen in data (and also nationwide)

Additional details can be found in our Experience Study report dated October 23, 2015.
James D. Anderson, Joseph P. Newton and Daniel J. White are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully Submitted,


Kenneth G. Albert
Project Manager and Contribution Audit Director

sames D. Anderson, FSA, EA, MAAA
Alternate Project Manager and Peer Review Actuary


Joseph P. Newton, FSA, EA, MAAA
Alternate Project Manager and Experience Study Director


Daniel J. White, FSA, EA, MAAA
Experience Study Director

## SECTION C

INDEPENDENT ACTUARY'S STATEMENT FOR THE BOARD OF EDUCATION RETIREMENT SYSTEM OF THE CITY OF NEW YORK (BERS)

## Independent Actuary's Statement for the Board of Education Retirement System of the City of New York (BERS)

Gabriel, Roeder, Smith \& Company (GRS) was retained by the Comptroller to serve as Independent Actuary under Section 96 of the New York City Charter and provide other services related to the review of the funding of the BERS.

GRS has completed the following:

- A Contribution Audit of the computed employer contributions for BERS for fiscal year 2014 (including an audit of actuarial accrued liabilities and actuarial valuation of assets);
- Experience Studies for the 4-year and 10-year periods ending June 30, 2013 for BERS; and
- An Administrative Review of the data gathering and maintenance practices of the Office of the Actuary (OA) and BERS.

Based on the Contribution Audit, the Experience Studies, and the Administrative Review for BERS, GRS certifies that BERS is being funded in accordance with Standards of Practice prescribed by the Actuarial Standards Board and in conformity with applicable New York State and New York City Statutes. Assuming continued funding of BERS by the City/Obligors on the basis used in the June 30, 2012 (Lag) Actuarial Valuation, we believe the City's funding objective (that these statutorily required contributions, together with member contributions and assumed investment income will be sufficient to pay benefits when due) will be achieved.

## Employer Contribution Audit for Fiscal Year 2014

GRS has performed an actuarial audit of the June 30, 2012 (Lag) Actuarial Valuation which develops the employer contributions for Fiscal Year 2014. This actuarial audit included:

- A review of actuarial methods and assumptions;
- A replication of the valuation (using GRS software) to verify the computations of Actuarial Value of Assets, Actuarial Liabilities and Employer Contributions; and
- A review of several test life cases to validate the programming and software used by the OA to perform the valuation.

GRS has concluded the following:

- Actuarial methods and assumptions adopted by the Board and used in the June 30, 2012 (Lag) Actuarial Valuation were reasonable, appropriate and in accordance with generally accepted actuarial standards of practice, including:
o The use of the Entry Age Actuarial Cost Method;
o The Actuarial Asset Valuation Method; and
o The demographic and economic assumptions.
- The mathematical computations performed by the OA in the June 30, 2012 (Lag) Actuarial Valuation were appropriate and correct and GRS was able to independently replicate the computation of the employer contributions within $0.5 \%$; and
- In GRS' review of test cases, GRS was able to confirm that the software used by the OA was generally programmed correctly and based on the methods and assumptions adopted by the Board, encoded in Statute or determined by the Actuary, as appropriate (any exceptions were minor, did not materially affect the results and were identified for the OA to review).

Additional details along with GRS' suggestions for improving the valuation can be found in our Actuarial Audit of Employer Contributions report for Fiscal Year 2014, dated October 23, 2015.

## Administrative Review

GRS has completed the Administrative Review, which included:

- A meeting with OA staff to discuss the data collection process and the benefit calculation/certification process;
- A meeting with BERS staff to discuss the data collection process and the benefit calculation/certification process; and
- A walk through BERS to review security measures taken to ensure the security of sensitive member data.

GRS has concluded the following:

- The data gathering process used by the OA produced data that was sufficiently accurate for use in the Actuarial Valuation and Experience Study;
- Transmission and storage of sensitive member data is done in a secure and appropriate manner; and
- Communications between the OA and BERS are on excellent terms and have fostered a cooperative and productive relationship.

Additional details along with GRS' suggestions for improving the data collection process can be found in our Administrative Review report dated October 9, 2015.

## Experience Study

GRS has completed the Experience Study for the 4-year and 10-year periods ending June 30, 2013. This process involved collecting the Experience Study database developed by the prior Independent Actuary, updating and maturing the data based on the valuation data used in the June 30, 2012 and June 30, 2013 actuarial valuations and comparing assumed experience to actual experience. Although the findings indicate that several assumptions differed from experience, GRS believes that:

- The economic assumptions used for the BERS valuation are reasonable and appropriate; and
- The demographic assumptions are reasonable and appropriate.

GRS recommends the OA consider changes in the following areas for future valuations:

- Reduce Investment Return Assumption
- Reduce rates of mortality and update the provision for future mortality improvement
- Salary Increase Assumption
o No specific proposed change to general portion
o Decrease the select period of the merit increase from 25 years to 10 years
o Decrease the assumed merit increases from years 6 through 10
- Withdrawal: Increase assumed withdrawals
- Retirement: reflect delays in retirement as seen in data (and also nationwide)

Additional details can be found in our Experience Study report dated October 23, 2015.
James D. Anderson, Joseph P. Newton and Daniel J. White are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully Submitted,


Kenneth G. Alberts
Project Manager and Contribution Audit Director


James D. Anderson, FSA, EA, MAAA
Alternate Project Manager and Peer Review Actuary


Joseph P. Newton, FSA, EA, MAAA
Alternate Project Manager and Experience Study Director


Daniel J. White, FSA, EA, MAAA
Experience Study Director

## SECTION D

INDEPENDENT ACTUARY'S STATEMENT FOR THE NEW YORK CITY POLICE PENSION FUND (POLICE)

## Independent Actuary's Statement for the New York City Police Pension Fund (POLICE)

Gabriel, Roeder, Smith \& Company (GRS) was retained by the Comptroller to serve as Independent Actuary under Section 96 of the New York City Charter and provide other services related to the review of the funding of POLICE.

GRS has completed the following:

- A Contribution Audit of the computed employer contributions for POLICE for fiscal year 2014 (including an audit of actuarial accrued liabilities and actuarial valuation of assets);
- Experience Studies for the 2-year and 10-year periods ending June 30, 2013 for POLICE; and
- An Administrative Review of the data gathering and maintenance practices of the Office of the Actuary (OA) and POLICE.

Based on the Contribution Audit, the Experience Studies, and the Administrative Review for POLICE, GRS certifies that POLICE is being funded in accordance with Standards of Practice prescribed by the Actuarial Standards Board and in conformity with applicable New York State and New York City Statutes. Assuming continued funding of POLICE by the City on the basis used in the June 30, 2012 (Lag) Actuarial Valuation, we believe the City's funding objective (that these statutorily required contributions, together with member contributions and assumed investment income will be sufficient to pay benefits when due) will be achieved.

## Employer Contribution Audit for Fiscal Year 2014

GRS has performed an actuarial audit of the June 30, 2012 (Lag) Actuarial Valuation which develops the employer contributions for Fiscal Year 2014. This actuarial audit included:

- A review of actuarial methods and assumptions;
- A replication of the valuation (using GRS software) to verify the computations of Actuarial Value of Assets, Actuarial Liabilities and Employer Contributions; and
- A review of several test life cases to validate the programming and software used by the OA to perform the valuation.

GRS has concluded the following:

- Actuarial methods and assumptions adopted by the Board and used in the June 30, 2012 (Lag) Actuarial Valuation were reasonable, appropriate and in accordance with generally accepted actuarial standards of practice, including:
o The use of the Entry Age Actuarial Cost Method;
o The Actuarial Asset Valuation Method; and
o The demographic and economic assumptions.
- The mathematical computations performed by the OA in the June 30, 2012 (Lag) Actuarial Valuation were appropriate and correct and GRS was able to independently replicate the computation of the employer contributions within 3\%; and
- In GRS' review of test cases, GRS was able to confirm that the software used by the OA was generally programmed correctly and based on the methods and assumptions adopted by the Board, encoded in Statute or determined by the Actuary, as appropriate (any exceptions were minor, did not materially affect the results and were identified for the OA to review).

Additional details along with GRS' suggestions for improving the valuation can be found in our Actuarial Audit of Employer Contributions report for Fiscal Year 2014 dated October 23, 2015.

## Administrative Review

GRS has completed the Administrative Review, which included:

- A meeting with OA staff to discuss the data collection process and the benefit calculation/certification process;
- A meeting with POLICE staff to discuss the data collection process and the benefit calculation/certification process; and
- A walk through POLICE to review security measures taken to ensure the security of sensitive member data.

GRS has concluded the following:

- The data gathering process used by the OA produced data that was sufficiently accurate for use in the Actuarial Valuation and Experience Study;
- Transmission and storage of sensitive member data is done in a secure and appropriate manner; and
- Communications between the OA and POLICE are on excellent terms and have fostered a cooperative and productive relationship.

Additional details along with GRS’ suggestions for improving the data collection process can be found in our Administrative Review report dated October 9, 2015.

## Experience Study

GRS has completed the Experience Study for the 4-year and 10-year periods ending June 30, 2013. This process involved collecting the Experience Study database developed by the prior Independent Actuary, updating and maturing the data based on the valuation data used in the June 30, 2012 and June 30, 2013 actuarial valuations and comparing assumed experience to actual experience. Although the findings indicate that several assumptions differed from experience, GRS believes that:

- The economic assumptions used for the POLICE valuation are reasonable and appropriate; and
- The demographic assumptions are reasonable and appropriate.

GRS recommends the OA consider changes in the following areas for future valuations:

- Reduce Investment Return Assumption
- Reduce rates of mortality and update the provision for future mortality improvement
- Salary Increase Assumption
o Increase the merit portion of the assumption, especially for members with 5 or more years of service
o Increase the dual overtime assumption to a constant $20 \%$ of pay
- Withdrawal: no change recommended at this time, but may need to reduce assumed rates of withdrawal in next experience study if trend in actual experience continues
- Disabilities: decrease rates of assumed disabilities for members eligible for WTC benefits

Additional details can be found in our Experience Study report dated October 23, 2015.
James D. Anderson, Joseph P. Newton and Daniel J. White are Members of the American Academy of Actuaries (M.A.A.A.) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully Submitted,


Kenneth G. Albert
Project Manager and Contribution Audit Director
Canes D. Anderson
James D. Anderson, FSA, EA, MAAA
Alternate Project Manager and Peer Review Actuary


Joseph P. Newton, FSA, EA, MAAA
Alternate Project Manager and Experience Study Director


Daniel J. White, FSA, EA, MAAA
Experience Study Director

## SECTION E

INDEPENDENT ACTUARY'S STATEMENT FOR THE NEW YORK FIRE DEPARTMENT PENSION FUND (FIRE)

## Independent Actuary's Statement for the New York Fire Department Pension Fund (FIRE)

Gabriel, Roeder, Smith \& Company (GRS) was retained by the Comptroller to serve as Independent Actuary under Section 96 of the New York City Charter and provide other services related to the review of the funding of FIRE.

GRS has completed the following:

- A Contribution Audit of the computed employer contributions for FIRE for fiscal year 2014 (including an audit of actuarial accrued liabilities and actuarial valuation of assets);
- Experience Studies for the 4-year and 10-year periods ending June 30, 2013 for FIRE; and
- An Administrative Review of the data gathering and maintenance practices of the Office of the Actuary (OA) and FIRE.

Based on the Contribution Audit, the Experience Studies, and the Administrative Review for FIRE, GRS certifies that FIRE is being funded in accordance with Standards of Practice prescribed by the Actuarial Standards Board and in conformity with applicable New York State and New York City Statutes. Assuming continued funding of FIRE by the City on the basis used in the June 30, 2012 (Lag) Actuarial Valuation, we believe the City's funding objective (that these statutorily required contributions, together with member contributions and assumed investment income will be sufficient to pay benefits when due) will be achieved.

## Employer Contribution Audit for Fiscal Year 2014

GRS has performed an actuarial audit of the June 30, 2012 (Lag) Actuarial Valuation which develops the employer contributions for Fiscal Year 2014. This actuarial audit included:

- A review of actuarial methods and assumptions;
- A replication of the valuation (using GRS software) to verify the computations of Actuarial Value of Assets, Actuarial Liabilities and Employer Contributions; and
- A review of several test life cases to validate the programming and software used by the OA to perform the valuation.

GRS has concluded the following:

- Actuarial methods and assumptions adopted by the Board and used in the June 30, 2012 (Lag) Actuarial Valuation were reasonable, appropriate and in accordance with generally accepted actuarial standards of practice, including:
o The use of the Entry Age Actuarial Cost Method;
o The Actuarial Asset Valuation Method; and
o The demographic and economic assumptions.
- The mathematical computations performed by the OA in the June 30, 2012 (Lag) Actuarial Valuation were appropriate and correct and GRS was able to independently replicate the computation of the employer contributions within $0.75 \%$; and
- In GRS' review of test cases, GRS was able to confirm that the software used by the OA was generally programmed correctly and based on the methods and assumptions adopted by the Board, encoded in Statute or determined by the Actuary as appropriate (any exceptions were minor, did not materially affect the results and were identified for the OA to review).

Additional details along with GRS' suggestions for improving the valuation can be found in our Actuarial Audit of Employer Contributions report for Fiscal Year 2014 dated October 23, 2015.

## Administrative Review

GRS has completed the Administrative Review, which included:

- A meeting with OA staff to discuss the data collection process and the benefit calculation/certification process;
- A meeting with FIRE staff to discuss the data collection process and the benefit calculation/certification process; and
- A walk through FIRE to review security measures taken to ensure the security of sensitive member data.

GRS has concluded the following:

- The data gathering process used by the OA produced data that was sufficiently accurate for use in the Actuarial Valuation and Experience Study;
- Transmission and storage of sensitive member data is done in a secure and appropriate manner; and
- Communications between the OA and FIRE are on excellent terms and have fostered a cooperative and productive relationship.

Additional details along with GRS' suggestions for improving the data collection process can be found in our Administrative Review report dated October 9, 2015.

## Experience Study

GRS has completed the Experience Study for the 2-year and 10-year periods ending June 30, 2013. This process involved collecting the Experience Study database developed by the prior Independent Actuary, updating and maturing the data based on the valuation data used in the June 30, 2012 and June 30, 2013 actuarial valuations and comparing assumed experience to actual experience. Although the findings indicate that several assumptions differed from experience, GRS believes that:

- The economic assumptions used for the FIRE valuation are reasonable and appropriate; and
- The demographic assumptions are reasonable and appropriate.

GRS recommends the OA consider changes in the following areas for future valuations:

- Reduce Investment Return Assumption
- Reduce rates of mortality and update the provision for future mortality improvement
- Salary Increase Assumption
o Increase the merit portion of the assumption, especially for members with 5 or more years of service
o Increase the dual overtime assumption to a constant $22 \%$ of pay
- Disabilities: decrease rates of assumed disabilities for members eligible for WTC benefits

Additional details can be found in our Experience Study report dated October 23, 2015.
James D. Anderson, Joseph P. Newton and Daniel J. White are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully Submitted,


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NEW YORK CITY RETIREMENT SYSTEMS
ACTUARIAL AUDIT AND RELATED REVIEW SERVICES
ADMINISTRATIVE REVIEW REPORT
OF ACTUARIAL DATA GATHERING PROCESS
OCTOBER 2015

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| List of Abbreviations |  |
| :--- | :--- |
|  |  |
| ABS | Annual Benefit Statements |
| Actuary | A person who is trained in the applications of probability and compound interest <br> to solve problems in business and finance that involve payment of money in the <br> future, contingent upon the occurrence of certain future events |
| Actuary | Mr. Robert C. North, Jr. |
| ADS | Annual Disclosure Statement |
| ASOP | Actuarial Standards of Practice |
| BERS | Board of Education Retirement System of the City of New York |
| BOE/DOE | Board of Education/Department of Education |
| BTDS | Bureau of Technology Development and Systems |
| CAFR | Comprehensive Annual Financial Report |
| CD-ROM | City Human Resources Management System |
| CHARMS | Comprehensive Officer Pension System |
| COPS | Comprehensive Pension Management System |
| CPMS | Certification Services Division |
| CSD | City University of New York |
| CUNY | New York City Retirement Systems (NYCERS, TRS, BERS, POLICE, and FIRE, |
| DoITT | Department of Information Technology and Telecommunications |
| DROP | Deferred Retirement Option Plan |
| EPIS | Employee Payroll Information Systems |
| FISA | Financial Information Service Agency |
| FDNY | New York Fire Department |
| FIRE | Few York Fire Department Pension Fund |
| FTP | Grabement System |
| GRM | FRS |


| List of Abbreviations (Concluded) |  |
| :--- | :--- |
| OA |  |
| OLR | Office of the Actuary |
| OPA | Office of Labor Relations of Payroll Administration |
| OPEB | Other Post-Employment Benefits |
| OSC | Office of the State Comptroller |
| PD | Partable Document Format |
| PDF | Pencice Department |
| PMS | Pensioner-Only/Beneficiary-Only File Payroll Management System |
| PO/BO file | Pension Administration System used by NYCERS |
| POLICE | The current actuarial software used by the OA |
| PPMS | Prudential Financial, Inc. |
| PROD | Qualified Domestic Relations Order |
| ProVal | School Construction Authority |
| Prudential | Secure File Transfer Protocol |
| QDRO | Tax Deferred Annuity |
| SCA | Teachers' Retirement System of the City of New York |
| SFTP | Unified Pension System |
| TDA | Virtual Private Network |
| TRS | Virtual Tape Library |
| UPS | VPF |
| VTL | WTC |

## SECTION A

EXECUTIVE SUMMARY AND PROCESS OVERVIEW

## EXECUTIVE SUMMARY

## Background

Gabriel, Roeder, Smith \& Company (GRS) was retained by the Comptroller to serve as Independent Actuary under Section 96 of the New York City Charter and provide other services related to the review of the funding of the following five actuarial pension funds (collectively NYCRS or the Systems):

- New York City Employees’ Retirement System (NYCERS)
- Teachers' Retirement System of the City of New York (TRS)
- Board of Education Retirement System of the City of New York (BERS)
- New York City Police Pension Fund (POLICE)
- New York Fire Department Pension Fund (FIRE)

GRS was engaged to conduct two consecutive biennial actuarial engagements, encompassing the following:

- Biennial Contribution Audits of the computed employer contributions for each System in NYCRS for fiscal years 2012 and 2014 (including an audit of actuarial accrued liabilities and actuarial valuation of assets);
- Biennial Experience Studies for the periods ending June 30, 2011 and June 30, 2013, for each System in NYCRS;
- Two Administrative Reviews of the data gathering and maintenance practices of the Office of the Actuary (OA) and each System in NYCRS (one review corresponding with each Contribution Audit); and
- Two Independent Actuarial Statements (one for each engagement); GRS, as the independent actuarial auditor, will submit a statement that will briefly describe the scope of the entire engagement, will review the entire engagement and comment on the financial condition and financing progress and policies of each System, and certify that the Systems are being funded on a sound actuarial, financial, and legal basis.

This report constitutes the deliverable with respect to the Administrative Review for the Second Engagement. The purpose of this report is to:

- Review the process of data gathering used in the annual actuarial valuations;
- Review the process of data gathering and transmission of results of benefit calculations/certifications that the OA performs for each of the Systems;
- Review the communications between the OA and each of the Systems related to the above items;
- Review the security of member data that is either stored by the Systems and the OA or transmitted between the Systems and the OA; and
- Make recommendations that improve the data collection process, the annual valuation process, and/or improve the security of member data related to storage and/or transmissions by the Systems and the OA.

New York City Retirement Systems
Administrative Review Report of Actuarial Data Gathering Process
October 2015

Our investigation should be considered a Review and not an Audit of administrative procedures. An audit would require more in-depth and detailed exploration of procedures.

The Actuarial Contribution Audit provides an independent verification of the computation of employer pension contributions - including the methodologies used therein and their conformity to laws and generally accepted actuarial principles. The Experience Studies review and comment on the continued appropriateness of the actuarial assumptions used in the computations of employer contributions and identify areas where assumptions may be improved. The Administrative Review evaluates the actuarial data gathering process to ensure that the data collection methods produce sufficiently accurate data for valuation and Experience Study purposes. Thus the three components of the assignment provide assurance that:

- Assets and liabilities are calculated accurately, using appropriate actuarial assumptions and methods, and are based on sufficient and accurate census data; and
- Employer contribution amounts are computed in conformity with all applicable financial, actuarial and statutory requirements.


## General Comments

In the course of the Administrative Review, we studied the procedures used by the OA and the Systems for collecting, validating, editing, maintaining and transmitting data for the actuarial valuations, as well as the Systems' disaster recovery plans. In addition, we evaluated the progress made by the OA and the Systems in implementing recommendations from the prior Administrative Reviews.

It was clear to us during the course of the Administrative Review that all Systems, as well as the OA, have made improvements in procedures and technology and are much more advanced and proficient in data collection and storage since the last audit performed by GRS (approximately 10 years ago). However, since the data collection and storage process is technology based and technology is constantly advancing, there are always additional enhancements that can be made. The recommendations contained in this report center on communications and data elements. While communications between the OA and the Systems appear to be on excellent terms and well-tuned, some of the Systems' staff do not seem to have a clear understanding of how the OA's valuation work directly benefits them and their members (although they see great benefit and value to the Systems in the other work that the OA performs, such as the benefit certifications). In addition, communications between each of the Systems occur on an as needed basis (even though communications between each System and the OA occur more often). We believe regular communications between each of the Systems will greatly enhance the efficiency and security of operations at each System. At the same time the OA should build upon the flow of information between the OA and each of the Systems. For example, more education from the OA about how the valuations and computation of the computed employer contributions benefit the Systems might provide staff with additional incentive in ensuring that the OA has all of the data items needed to better analyze certain aspects of the Systems, such as liabilities associated with part-time members in BERS and service buy-back in all the Systems.

GRS has concluded that the data used by the OA to determine employer pension contributions and develop actuarial assumptions was sufficient and accurate for those purposes.

This report is divided into the following sections:

| Section A | Executive Summary and Process Overview |
| :--- | :--- |
| Section B | Administrative Review Process |
| Section C | Recommendations |
| Section D | Implementation Review |
| Appendix 1 | Findings by Entity (OA and Each System) |
| Appendix 2 | Sample Employee Record Analysis |

We would like to thank the OA and the staff of each of the Systems for hosting our visits, supplying the information on which this study was based and reviewing initial drafts. This report could not have been completed without their assistance. They all were accommodating, informative and helpful.

James D. Anderson is a Member of the American Academy of Actuaries (MAAA) and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully Submitted,


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## SECTION B

ADMINISTRATIVE REVIEW PROCESS

## Administrative Review Process

## Overview

Our primary focus in conducting the Administrative Review was to review administrative procedures used to collect, validate, edit, maintain and transmit data used for the actuarial valuations. Data that is edited for valuation purposes is also used along with edited data from prior years to develop actuarial assumptions in the Experience Study analysis. Thus, by commenting on the integrity of data used for valuation purposes, we are in effect also commenting on the integrity of data used for Experience Study purposes.

In evaluating administrative procedures for data we used two criteria: (1) whether data provided was sufficiently accurate; and (2) whether procedures used were efficient. In analyzing procedures, we brought to bear our knowledge of practices with other public plans, as well as the structure and governance of the OA and the New York City Retirement Systems.

## First Engagement

To gain knowledge of current procedures, we studied documents provided by the OA that described the data procedures used by the OA for updating the data used for performing the actuarial valuation for each System. This detailed documentation included data flow, record layouts, target timelines, edit checks conducted by the OA and the estimation of certain data items by the OA that the Systems are unable to provide. We also reviewed prior auditors' Administrative Review Reports, paying special attention to recommendations made by the auditors.

We next met with the OA as well as each of the five Systems. The objective of the meetings was to track the evolution of the procedures used by the OA and the Systems and to identify emerging issues. We wanted to determine whether the procedures used were consistent with current technology and current needs. Review of the Systems’ security and disaster recovery procedures was especially important in this Administrative Review. We also used the meetings to determine the status of implementation of recommendations made by prior auditors. The meetings with the OA and the Systems were done independently (neither was present at the others' meetings). One of the objectives of having independent meetings was to determine the consistency of the information that was provided to us during the meetings. In addition, we believe this gave all parties the opportunity to provide candid and independent responses to our questions.

Prior to each meeting we developed and sent out a detailed list of questions and issues to be discussed at the meeting. The questions covered the following five broad topics: Data Process for Valuation Data, Data Process for Benefit Calculations, Review of Prior Administrative Review, Involvement of outside Vendors with Data, Data Security and Recovery. We also asked about documentation, manuals, and staff member training opportunities at each System. Submitting our questions prior to our meeting allowed for the best use of time at the 3 to 4 hour meetings.

## Second Engagement

Due to the short time between the First and Second Engagement, our process for the Second Engagement involved a visit with each of the Systems and the OA to:

1. determine which items identified in the First Engagement were still relevant;
2. determine if any additional items should be added to the report; and
3. review select individual member data used in the June 30, 2012 Actuarial Valuation.

## Detail of Process

The Administrative Review began with a meeting in April, 2013 at the OA. During this meeting GRS first met with the Valuation Services Division (VSD) and discussed the process of collecting the valuation data. The overall process was described followed by a specific discussion for each System. Upon completion of the valuation data discussion, GRS met with the OA's benefit Certification Services Division (CSD) to discuss the benefit calculation/certification process and the related transmissions between the Systems and the OA of requests and results.

## The agenda for that meeting is shown below:

## Administrative Review - Discussion with the OA

I. Overview of OA Mission, Organizational Structure, Staffing, Reporting Relationships, Clients, Work Process
a. OA repeating tasks (Pension valuations, OPEB valuations, benefit calculations, etc.)
b. OA non-repeating tasks
c. Reports published by the OA
d. OA priorities
e. Current special projects (i.e., systems upgrade, conversion to PROVAL, etc.)

The following for each System
II. Data Process for Valuation Data
a. Where does OA get the data
b. How does OA get the data
c. What independent checks are performed to ensure the data is complete (auditing)
d. What editing is performed to ensure data is correct
e. What business rules are performed
f. What happens to records that are determined to be doubtful/defective
g. How are records tracked from year-to-year
h. How many parties/agencies (not individuals) are directly or indirectly involved in the process (i.e., OA, FIRE, Payroll, etc.)
i. How long does the data processing typically take
j. Documentation from kick-off meeting with System
k. Documentation on process
III. Data Process for Benefit Calculations
a. Where does data come from
b. Is data compared to valuation data
c. What checks are performed to ensure accuracy of data (if any)
d. How are results communicated to the System
e. Sample calculations (including 415 testing)
IV. Review of Prior Administrative Review
a. Suggestions that have been implemented
b. Suggestions that have not been implemented
c. Suggestions that have been rejected
V. Involvement of Outside Vendors with Data
a. How many outside vendors receive data
b. How is it transmitted
c. How long do vendors keep the data
d. What security reviews are performed with these vendors
VI. Data Security and Recovery
a. How is data kept secure during transmission, working, storage
b. What security tests are performed
c. What are the back-up procedures
d. What are the off-location storage procedures
e. What testing is routinely performed (restoration from back-up; attempted security breaches; disaster recovery of data and of operations (i.e., if the office is shut down, can work continue remotely)
VII. Documentation or Manuals regarding any of the above
VIII. Problems faced by the OA on any of the above, Wish List, and Plans for the Future

In January 2014, GRS met with each of the Systems. The agenda for those meetings is shown below (each meeting followed the same agenda). During each meeting GRS had member data for a select group of members valued in the June 30, 2010 valuation. The Systems then looked up those members in their databases to compare the data elements for each member. In addition, GRS also took a tour of the Systems’ facilities with a focus on member information security.

## NYCRS Administrative Review - Discussion with the Systems

I. Data Process for Valuation Data
a. Where does data come from, and how is it entered into System databases
b. How is data transferred and who is it transferred to
c. What independent checks are performed to ensure the data is complete (auditing, year-toyear reconciliation, independent sources of information)
d. What editing is performed to ensure data is correct
e. What business rules are performed and when are they performed (i.e., when database is entered or after receiving feedback from OA, etc.)
f. What happens to records that are determined to be doubtful/defective, and how/when are data issues resolved
g. How are records tracked from year-to-year
h. How many parties/agencies (not individuals) are directly or indirectly involved in the process (i.e., OA, City department, Payroll, etc.)
i. How long does the data processing typically take
j. Is documentation from kick-off meeting with OA sufficient and understandable
k. Describe on-going communication protocols with OA
l. What process documentation exists
m. Wish list - items or issues the System would like to see changed or improved (if any)
II. Data Process for Benefit Calculations
a. Describe benefit application/benefit calculation request process
b. How is data transferred to OA for calculation requests
c. What checks are performed to ensure accuracy of data (if any)
d. How long does it take to get from member initiation of retirement process to benefit finalization
e. How are results communicated
f. How is benefit calculation process documented
g. What calculations are performed internally versus externally (by OA)
III. Review of Prior Administrative Review
a. Suggestions that have been implemented
b. Suggestions that have not been implemented
c. Suggestions that have been rejected
IV. Involvement of Outside Vendors with Data
a. How many outside vendors receive data
b. How is it transmitted
c. How long do vendors keep the data
d. What security reviews are performed with these vendors
V. Data Security and Recovery
a. How is data kept secure during transmission, working, storage
b. What security tests are performed
c. What are the back-up procedures
d. What are the off-location storage procedures
e. What testing is routinely performed -- restoration from back-up; attempted security breaches; disaster recovery of data and of operations (i.e., if the office is shut down, can work continue remotely)
VI. Documentation or Manuals regarding any of the above
VII. Staff Member Training, use of Updated Technology
VIII. Sample Employee Record Analysis: Active, Retiree and Terminated Vested Demographic Data

- Include a sample record of a retiree whose benefit had not been finalized at 6/30/2010
- Record-keeping of VSF and VSF-DROP recipients/payments (if applicable)


## Second Engagement Update

In January 2015, GRS met with each of the Systems and in March 2015 GRS met with the OA. The agenda for those meetings centered on discussion of the First Engagement Report (item by item). During each meeting GRS brought member data (System meetings only) for a select group of members valued in the June 30, 2012 valuation. The Systems then looked up those members in their databases to compare the data elements for each member.

The balance of this report is primarily from the First Engagement with sections updated from the System and OA visits during the Second Engagement.

## SECTION C

RECOMMENDATIONS

## RECOMMENDATIONS

Below is a summary of the recommendations contained in this report along with a discussion of the rationale behind the recommendations:

## RECOMMENDATIONS - COMPTROLLER

1. Explore whether or not there are more efficient approaches to the Administrative Review

Each of the Systems undergoes several audits each year. One common theme we heard in our visits was that the Systems were constantly dealing with various audits throughout the year (some of the Systems were hosting other auditors during our visits). We understand that the audits performed on the Systems include:

- Audits of investments and transactions by Systems' outside auditors;
- Audits of investments and transactions by the City;
- Audits of investments and transactions by the State;
- Security Audits by Systems' internal and external security experts; and
- Actuarial Audit that includes this Administrative Review.

The Administrative Review contains a review of data used in the actuarial valuation and a review of the security of the Systems' data storage and data transmission. Outside auditors routinely perform data reviews to ensure that the liabilities reported in the Comprehensive Annual Financial Report (CAFR) are based on the appropriate member data.

The main advantage to the independent actuarial auditor of the Administrative Review is the verification that the valuation data and experience study data is reasonably accurate and complete. There are a number of ways in which the independent actuarial auditor can gather that information in lieu of the current Administrative Review, including:

- Receiving member data from the Systems and comparing it to the data used by the OA for the valuation (the most common process in actuarial audits);
- Requesting sample data from the Systems and comparing it to the data used by the OA for the valuation; and
- Collecting member data (in sample form or complete form) from other sources, such as the City, the Systems' auditors, or the City's auditors.

We therefore recommend that the Comptroller explore whether or not a more efficient approach to the Administrative Review is practical. Such approaches might include:

- Combining the Administrative Review with one of the other audits, thereby reducing some of the duplicative work and the burden on the Systems;
- Seeking alternative ways to determine the completeness and accuracy of the valuation data.


## 2. Consider separating the Contribution Audits from the Experience Study

The Contribution Audits serves to provide the Systems and the City with an independent review of the actuarial valuation. We commend this function and recommend that it be continued. Since this is a service that benefits the City and all of the Systems, we agree that it makes sense that the service be combined for all of the Systems in a single contract and handled by the Comptroller's Office. However, we recommend consideration of separating the Experience Study from the Contribution Audits (we understand this may require law changes). Since the purpose of the Experience Study is to establish assumptions for use in the actuarial valuation by the OA, we believe that it is best if those studies use the same software that is used for the annual valuations at that time. Each valuation system has slight variations on how probabilities are applied. These can include the manner in which ages are rounded, how the probabilities are drawn from the age based tables, how service is rounded to be used to draw a service based probability, how the salary increase timing and decrement timings affect calculations, etc. While most valuation systems can be modified to replicate other systems, it is a more efficient process to use the same system and then start with the actual valuation files, thereby reducing the possibility that technical issues are treated differently between the Experience Study and the Annual Valuation.

Some valuation systems maintain their own databases for use in the experience study module (such as ProVal). This could eliminate the need for the actuarial auditor to maintain a separate experience study database and possibly reduce the work involved in maturing the data. In turn, this would reduce the cost of producing the Experience Study. In addition, this gives the Actuarial Auditor the ability to put more focus on performing an independent review of assumptions and the development of contributions. With the Contribution Audits split from the Experience Study, the Independent Actuarial Auditor could still use different software than the OA to perform the Contribution Audit. This would continue to provide independent verification of the software used in the annual valuation by the OA.

Splitting of these services could be done in different manners. One possibility is that the OA performs all aspects of the Experience Study (either directly or through a vendor hired by the OA) and the Independent Actuarial Auditor performs a review of the Experience Study results as part of the Actuarial Audit of Employer Contributions.

## RECOMMENDATIONS - OA

## 1. Continue annual kick-off meetings and data requests

The OA has developed an excellent rapport with the Systems through the meetings and data requests. All of the Systems indicated that communications were on excellent terms and they had a full understanding of the data items requested by the OA. We commend the OA for the development and implementation of this process and recommend its continued use.

## 2. Provide educational presentations to System Staff

It was clear that communications between the OA and the Systems were on excellent terms and the OA is to be commended for the effort that they have made to create a process that is open, clear and cooperative. However, it was also clear that not all of the Systems' staff view the valuation as a service provided to them. Rather they view the valuation as a service provided to the City/Comptroller that requires their participation. We believe that if the Staff were educated on the value of the actuarial valuations (and resulting funding) to the Systems, then the Staff may be more invested in ensuring that the OA has all of the information it needs to provide the best possible valuation results. We therefore recommend that the OA build upon the excellent communications process it has with the Systems' Staff to let them know that the Systems are the OA's principals for the valuation and the importance of the data in the accuracy of the results. This could be done as part of the annual valuation kick-off meeting or during one of the routine followup meetings. Educational information should also include general topics, such as how the recent Federal Bankruptcy Court decision that indicated i) federal bankruptcy laws supersede state constitutions and ii) accrued pension benefits can be reduced in municipal bankruptcy regardless of any state constitutional protections, may (or may not) affect the administration and funding of public pension plans across the country.

## Second Engagement Update

This recommendation was discussed with Staff at each of the Systems during the Second Engagement. NYCERS, BERS and FIRE indicated that they would be open to the additional meetings and thought they might be of value. TRS indicated that the OA has done this for TRS Staff and the Charter Schools' Staff in the past. They indicated that it was of great value for the Charter Schools Staff to hear. However, they felt that current TRS Staff was well enough educated on the process and that additional meetings would yield little additional knowledge. POLICE felt that the current regular kick-off meetings were sufficient and were targeted at the narrow group of Staff members that would benefit from such education.

The OA strongly disagrees with this recommendation, suggesting that perhaps the Executive Directors could educate System Staff, while noting that the OA works hand in hand with each System. When asked to define the relationship between the OA and the Systems, the OA described the relationship as "co-dependent" since the Systems need certain things from the OA and the OA needs certain things from the Systems. The OA also noted "competing priorities" for its own Staff and time.

## 3. Fill key open positions at OA

The OA has several key positions open including the Chief Actuary (we understand the filling of this position is in progress), First Deputy Chief Actuary, one Deputy Chief Actuary and one Assistant Deputy Chief Actuary. We recommend these positions be filled as soon as possible. This will (eventually) alleviate some of the workflow burden on existing staff and reduce some of the deadline stress the OA now faces (or enable
more service to be provided). In addition, filling these positions may enable the OA to implement succession planning for the key staff nearing retirement.

## Second Engagement Update

During the end of the First Engagement the Chief Actuary (Mr. Robert C. North) retired. While arrangements were made for Mr. North to assist remotely during the transition period, his retirement further highlights the need for filling key open positions.

## 4. Produce full valuation reports for NYCERS, TRS, and BERS

Current Actuarial Standards of Practice Statement No. 41 states, in part:
3.2 Actuarial Report—The actuary should complete an actuarial report if the actuary intends the actuarial findings to be relied upon by any intended user. The actuary should consider the needs of the intended user in communicating the actuarial findings in the actuarial report.
An actuarial report may comprise one or several documents. The report may be in several different formats (such as formal documents produced on word processing, presentation or publishing software, e-mail, paper, or web sites). Where an actuarial report for a specific intended user comprises multiple documents, the actuary should communicate which documents comprise the report.

In the actuarial report, the actuary should state the actuarial findings, and identify the methods, procedures, assumptions, and data used by the actuary with sufficient clarity that another actuary qualified in the same practice area could make an objective appraisal of the reasonableness of the actuary's work as presented in the actuarial report.

The OA does not currently produce formal valuation reports for NYCERS, TRS or BERS. However, the OA has indicated that it produces several different actuarial reports for several different purposes for each of the Systems (such as the appropriations letters, the CAFR letters and the Annual Statement filings to the New York State Department of Financial Services), which satisfy this ASOP requirement, even though none is truly a formal valuation report.

Despite producing the various reports, we believe there are still advantages to producing a formal valuation report, such as: memorializing valuation results; providing complete valuation results in one document that can be used by all stakeholders; providing a single document with valuation results for purposes of the actuarial audit, etc. Currently full/formal valuation reports are only produced for POLICE and FIRE. We recommend that the OA produce full/formal valuation reports for NYCERS, TRS, and BERS.

## Second Engagement Update

The OA noted that currently, there is no plan to produce formal reports for NYCERS, TRS and BERS.

## 5. Work with BERS to obtain better credited service information

The OA does not feel that the credited service currently reported by BERS is representative of actual credited service. In addition, they believe BERS is unable to provide them with adequate information regarding part-time employees (including hourly rate of pay, number of hours that defines full-time status for the current position, portion of full-time status currently working, etc.). We understand that the DOE actually tracks credited service very well and BERS gets the credited service from the DOE when they perform a benefit calculation. However, it was less clear if the DOE had all the necessary information the OA needs to project liabilities for part-time members going forward. Since BERS is in the process of upgrading its database, we think this is a perfect time for the OA to continuing working with BERS to improve the reporting of credited service for valuation purposes. We therefore recommend that BERS, the OA and the DOE continue to work together to see if sufficient information on part-time BERS members can be provided for annual valuations.

## Second Engagement Update

The OA has continued to work with BERS on this issue and we understand from BERS that they sent the OA test files. However, during the meeting with the OA, we understand that the OA did not receive any test files from BERS. We have sent followup emails to BERS and the OA (jointly) to get clarification on this issue. Both BERS and the OA continue to work toward improving the reported data.

## 6. Work with NYCERS to determine if the OA can use the service information NYCERS collects for potential service purchases

The OA has stated that it has an interest in improving the valuation regarding service that has been purchased and service that may be potentially purchased. NYCERS has indicated that they have some information that may assist the OA in developing a service purchase assumption. We recommend that the OA work with NYCERS to determine if this information can be useful to the OA for developing a service purchase assumption or possibly estimating a liability for future service purchases.

## Second Engagement Update

We understand that the OA is working with NYCERS to determine whether the data that NYCERS collects for potential service purchases would be useful in establishing/refining service purchase assumptions. From our meeting with the OA, we understand that NYCERS has legal authority to maintain this data.

## Second Engagement Recommendations

## 7. Perform all of Portions of Experience Study Internally

The current experience study process includes a requirement for the auditing actuary to update a previously created Microsoft Access database with new valuation data, to mature the data, and then to create the analysis tables for the experience study. This process has been in place for several experience study cycles. We find this process to be inefficient, create a less dependable product, and to be more expensive than alternative processes. In the past, one impediment to having the OA perform these tasks was the large additional work-flow burden. However, now that the OA has moved to using ProVal, this burden may be sufficiently reduced to justify the additional work.

We therefore recommend the reconciliation and maturation process be managed either by the OA directly or by their actuarial consultants (currently Buck). ProVal has a robust experience study module that minimizes the steps from reconciling data for the annual valuation process to having analysis exhibits for use in an experience study. In addition, by allowing the valuation system to perform the analysis, there would be certainty that all members were being counted in a manner consistent with the manner they are valued in the regular annual valuation (member group, age, service, application of decrements, etc.)

If future processes included an auditing actuary performing an experience study, then the auditing actuary could receive the experience study exhibits from the OA and perform their analysis and make recommendations.

An alternative process all together would be for the OA to perform the experience study, including the initial recommendations, and have the auditing actuary review the study (opine on the reasonableness and appropriateness of the recommendations).

## 8. Prepare for the contribution audit while performing the regular valuation

During the First Engagement, submission of test lives were delayed as a result of the change of valuation software to ProVal and the test live process under the new software was a new process for the OA. However, for the Second Engagement the submission of test life information appeared to be no less burdensome on the OA, despite the fact that the software had been in place for 2 valuation cycles. We recommend that the OA develop a representative sample of cases from most benefit groups and routinely run test life information so that it is readily available for the contribution audit. While some actuarial auditors will make additional test life requests, we believe a standard set that represents a sample of most benefit groups will satisfy most of the actuarial auditors' needs and add a great deal of efficiency to the actuarial auditing process.

## 9. CSD should explore whether using the FTP site will increase efficiency in processing

 benefit calculationsDuring the Second Engagement, the CSD was asked about their use of the FTP site as a way to correspond electronically with the Systems (for those Systems which the CSD does not have direct access into computer systems). The CSD indicated that they were not using the FTP site and seemed unaware that the VSD was using FTP to transmit data. We recommend that the CSD investigate the use of the OA's FTP site as a way to replace hard copy transmission of information for those Systems that they are still communicating with through messenger service.
10. CSD should reconsider batch processing of recalculations due to contract settlements

Given the volume of recalculations that the Systems and the OA will incur due to the contract settlements, we recommend that the OA utilize a reasonable method to expedite processing of these calculations so long as accuracy is not compromised.

## RECOMMENDATIONS - NYCERS

1. Share information about the NYCERS paperless office, security, disaster recovery and business continuity programs with the other Systems

NYCERS is further developed in many of these areas than some of the other Systems and we commend NYCERS for the development of these programs. The sharing of program ideas will benefit the other Systems as they work to improve their programs. We understand that disaster recovery is regularly tested and that NYCERS can make a full recovery in 3 hours or less and become production ready in 4 hours or less. We commend NYCERS for this impressive program.

## Second Engagement Update

We understand that BERS and POLICE have recently reached out to NYCERS to review their paperless office program and that NYCERS shares this information upon request of the other Systems.
2. Reach out to TRS to learn about its employee security education program

TRS appears to be more advanced in educating its employees on security issues than the other Systems. We believe this is a good program and that the other Systems could benefit from developing similar programs. The program is designed to educate System employees that they are the first defense in maintaining security. We agree.

## 3. Involve the OA in the development of the new data management system

Data collection is critical to the valuation process. The most efficient process for the annual valuation data collection would be for NYCERS to be the single source of all of the OA's data needs although we understand that this may not be practical. Toward that end, we recommend that NYCERS involve the OA as they develop its new systems to ensure that they are able to easily provide the OA with all the data the OA needs for the annual valuation.

## Second Engagement Update

We understand that NYCERS is involving the OA in this development to ensure that the new system will meet the data needs of the OA.

## 4. Work with OA and data management to become the single source of data

We concur with the prior actuarial auditor that NYCERS should be the single source of data while noting there may be barriers to achieving that goal. Since NYCERS actually performs the benefit calculations (as well as estimates on the annual benefit statements), they should be in possession of all the data necessary to perform the annual valuations. In addition, they routinely go through a data verification process. By using the data from NYCERS, the OA should be able to obtain clean data that reliably contains all the elements necessary to perform the annual valuations. Using NYCERS as the single source of data will also be a more efficient use of the OA's time and resources. We recognize that this is an ideal recommendation and that there may be practical limitations that prevent the implementation of this recommendation. It should also be noted that we are not recommending that the OA cease collecting information from other sources for purposes of cross-checking data received from NYCERS (or any of the other Systems).
5. Share service purchase information with the OA and work with the OA to determine if this information would be useful to the OA in the development of a service purchase assumption or estimation of potential service purchase liabilities

The OA has stated that it has an interest in improving the valuation regarding service that has been purchased and service that may be potentially purchased. NYCERS has indicated that they have some information that may assist the OA in developing a service purchase assumption. We recommend that NYCERS work with the OA to determine if this information can be useful to the OA for developing a service purchase assumption or possibly estimating a liability for future service purchases.
6. Supply the Increased Take-Home Pay (ITHP) and required employee contributions to the OA

We agree with the prior actuarial auditor that NYCERS should supply this information. We understand that this is in progress as part of the computer upgrade for FY2017.

## RECOMMENDATIONS - TRS

1. Share information about employees security education/training with other Systems

TRS had the most evolved employee education (regarding security) of all the Systems. We commend this program and believe that the other Systems could benefit from implementation of similar programs. We recommend that TRS share information regarding this program with the other Systems.

## Second Engagement Update

We understand that BERS reached out to TRS about the Business Continuity program. In general, TRS shares its information with the other Systems, when requested.

## 2. Reach out to NYCERS to gather information on its paperless system/process

NYCERS appears to be the most advanced in the move to a paperless environment. TRS is moving in that direction. We recommend that TRS reach out to NYCERS to learn about its paperless system as TRS refines its own system. Since NYCERS is farther along in the process, TRS may glean some valuable information from NYCERS experiences.
3. Review process of storing boxes of information waiting for transportation to offsite facilities

TRS has several policies related to security, including a clean desk policy. The concept behind the clean desk policy is that material that contains sensitive member information be locked up overnight, every night - even if a case file is still in process. This way the information is not exposed on someone's desk when the office is generally empty (or near empty). However, TRS stores boxes of sensitive information in stacks on the floor while the boxes await transportation to offsite storage. We understand these boxes could wait for 2-3 weeks before being transported. This policy would seem to counter any additional security achieved from the clean desk policy. We recommend this policy be reviewed and revised, as appropriate.

## Second Engagement Update

We understand the TRS has put in an effort to send the boxes to the offsite storage location more quickly.
4. Some active member data, such as from CUNY and Charter Schools, are entered into the TRS database manually. TRS should explore secure electronic methods of receiving this data and entering it into the TRS database.

We understand this is in progress and recommend continuing to implement this prior recommendation. See implementation review for additional information on current status.

## Second Engagement Update

In January 2015 we learned that this is part of the TRS modernization project (or modernization roadmap) and it has been resolved with regard to the Charter Schools.
5. TRS provided on-line benefit certification capability to the OA, but this is not utilized in all cases. TRS and the OA should work on extending this efficient procedure to all benefit certifications.

We understand this is in progress and recommend continuing to implement this prior recommendation. See implementation review for additional information on current status.

## Second Engagement Update

This issue has been resolved.
6. Some of TRS' technology may no longer be supported by vendors or may become obsolete. TRS should evaluate its technology and make updates if appropriate.

We understand this is in progress and recommend continuing to implement this prior recommendation. See implementation review for additional information on current status.

## Second Engagement Update

We understand this is in progress and is part of the Modernization Roadmap.

## RECOMMENDATIONS - BERS

1. Develop a formal set of business rules to use in the data verification process

BERS seems to lag behind NYCERS, TRS, and POLICE in data verification precision. Since BERS is in the process of developing a new data management system, this is a great time to create a set of formal business verification rules. Currently BERS uses an informal process to compare data in the management system to case files (individual member files). While a formal set of rules may not result in better data verification, it will aid in the training of new BERS staff and ensure that the current data verification standard continues to be met when new (inexperienced) staff are hired or promoted. BERS does not concur that the development of formal business rules will improve its data verification precision. BERS believes that the reason they lag behind the other Systems is related to the use of antiquated and multiple data sources and the fact that digital historical records are only available through mid-2000. They further believe that this will be addressed with the development of CPMS.

## Second Engagement Update

BERS indicated that they are currently working through rules for the CPMS (the new system). These rules are being developed in great detail as part of the specification process.

## 2. Work with DOE to improve credited service reporting for the annual valuation

BERS benefits are based on actual service earned and annualized pay. However, the OA currently does not believe the reported service on the valuation data is reliable. In addition, the OA would like to receive additional information including hourly rate of pay, number of hours that defines full time status for the current position, portion of fulltime status currently working, etc. In the absence of receiving complete part-time information, the OA values benefits based on annualized service and reported pay. Valuation results would be greatly improved if the OA could base the valuation on the same process used to compute benefits. Since the DOE is believed to have this data, we recommend that BERS work with the DOE (and the OA, as necessary) to capture this data for the annual valuation data file.

## Second Engagement Update

During the Second Engagement, BERS indicated that the DOE went back as far as possible to gather historical data. BERS has also been collecting better service information since September 2012 and recently gave a test file to the OA with what is hoped to be improved data.

## 3. Involve the OA in the development of the new administration system

Data collection is critical to the valuation process. The most efficient process for the annual valuation data collection would be for BERS to be the single source of all of the OA's data needs. Toward that end, we recommend that BERS involve the OA as BERS develops its new systems to ensure that they are able to easily provide the OA with all the data the OA needs for the annual valuation. We understand that BERS has included a representative of the OA on the Steering Committee for the project and is committed to ensuring the OA is included on all the development specifications that involve input to or output from the OA.
4. Review NYCERS, TRS, and POLICE programs and policies on paperless office, security, disaster recovery and business continuity

BERS lags behind these other systems in these areas (but is ahead of FIRE). Each of the other systems has a standout policy or program in one of these areas. We believe that BERS will therefore benefit from the other Systems' experience in the development of its own programs/policies.

## Second Engagement Update

BERS indicated that they reviewed NYCERS paperless office before starting their own imaging project.
5. Share the Administrative Review Report with staff

Staff indicated that they had never seen the prior Actuarial Auditor's Administrative Review Report. We recommend this report be shared with staff so that BERS can evaluate and implement the recommendations contained herein. After the draft Administrative Review Report was circulated, staff indicated that the hard copy of the final Administrative Review Report is routinely made available to all staff interested in reviewing it.
6. There is no specific documentation of BERS' process to provide active member data to the OA. BERS should document its active data process in writing.

We understand this is in process with the development of CPMS and recommend continuing to implement this recommendation. See implementation review for additional information on current status.
7. BERS does not supply ITHP and required employee contribution data to the OA for the valuation. The OA and BERS should determine whether this data is reliable, and if so, the data should be provided to the OA. When BERS' computer system is upgraded, this data should be included in the database and provided to the OA.

We understand this is in process with the development of CPMS and recommend continuing to implement this recommendation. See implementation review for additional information on current status.

## Second Engagement Update

BERS indicated that this item has been resolved/completed.
8. BERS does not supply full-time employees' service and part-time employees' hours to the OA for the valuation. The OA and BERS should work together to validate this data, and if valid, it should be provided to the OA.

We understand this is in process with the development of CPMS and recommend continuing to implement this recommendation. See implementation review for additional information on current status.
9. The active valuation data process depends too heavily on the involvement of Prudential. BERS should complete the effort to replace the Prudential data system. The OA should be consulted on the data elements to be included in the new system, and should be given access to the new system for benefit certification purposes. An outside vendor should be engaged to provide data back-ups and business continuity protection services.

We understand this is in process with the development of CPMS and recommend continuing to implement this recommendation. See implementation review for additional information on current status.
10. Given the current data system arrangement, efficiency and data security can be improved.

We understand this is in process with the development of CPMS and recommend continuing to implement this recommendation. See implementation review for additional information on current status.

## Second Engagement Update

BERS has also indicated that when DoITT is involved with the data (as is the case for BERS), data security and access is tightly controlled by DoITT.

## RECOMMENDATIONS - POLICE

## 1. Review NYCERS policies/program regarding a paperless office

NYCERS appears to have made the most progress on becoming a paperless office. POLICE have indicated that becoming a paperless office is on their wish list. We concur that POLICE should move in this direction. We recommend that POLICE review the NYCERS program/policies as they continue progress toward becoming paperless.

## Second Engagement Update

POLICE indicated that their director reached out to NYCERS proactively and POLICE staff visited NYCERS to review their procedures. They determined that NYCERS verify data and destroy paper on a much quicker timeline. As a result, POLICE are reviewing possible implementations to improve their paperless processing.

## 2. Continue to move World Trade Center (WTC) Election Data into COPS

This data is important for the OA in the valuation process. The election data indicates which WTC eligible members have made the appropriate election to maintain eligibility for WTC benefits in the event of a future disability. Currently, the OA estimates liabilities based on aggregate estimations. In addition, the OA has established different probabilities for certain benefits based on WTC eligibility. Getting accurate election information to the OA will enhance the accuracy of the valuations. We therefore recommend that moving election data into COPS be completed as soon as possible so that POLICE can give the OA this information seamlessly with the rest of the valuation data.

## Second Engagement Update

POLICE indicated that this was completed.

## 3. Integrate Tier III into COPS

We understand POLICE is in the process of integrating Tier III into COPS. As more members are hired into this tier, this will become more important. We recommend this be completed as soon as possible.

## Second Engagement Update

POLICE indicated that this is expected to be completed during the Summer 2015.

## 4. Hire additional staff

We understand that POLICE anticipate a heavier than normal volume of retirement calculations in the near term. Not only is there a large class becoming eligible, but there will be a number of recalculations needed once contracts are settled (expected to be soon due to the election of the new mayor). In all, once labor contracts are settled, POLICE will have at least 4,500 retirement benefits to finalize and get certified by the OA. POLICE should consider hiring additional staff to handle the additional workload.

## Second Engagement Update

POLICE indicated that they have analyzed this issue and currently believe that the anticipated higher number of calculations can adequately be handled through overtime and staff re-allocation without requiring additional staff.

## 5. Fix member account balances

In the June 30, 2010 valuation data, reported required ITHP balances were inconsistent with prior and subsequent reporting. The OA identified this and established an aggregate liability adjustment to account for the incorrect reporting. We queried the total balances for all POLICE members as of June 30, 2009, June 30, 2010, and June 30, 2011. Those balances are shown below:

| June 30, | \$Millions |  |  |  |  |  |  |  | Active Count |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ASF |  |  |  | ITHP |  |  |  |  |
|  | Actual |  | Required |  | Actual |  | Required |  |  |
| 2009 | \$ | 1,913.6 | \$ | 1,385.9 | \$ | 1,844.3 | \$ | 1,745.5 | 35,589 |
| 2010 | \$ | 2,105.1 | \$ | 1,413.9 | \$ | 2,054.9 | \$ | 2,795.0 | 34,219 |
| 2011 | \$ | 2,214.7 | \$ | 1,373.0 | S | 3,156.0 | \$ | 3,014.2 | 32,205 |

As the table shows, June 30, 2010 is the only year where the required ITHP balance is greater than the actual ITHP balance, in total. Although a review of the June 30, 2011 balance was not within the scope of our engagement, in looking at the table above, it does appear that there may be a problem with the reported required ASF balance in that year's data. That is the only year where the required ASF balance decreases. However, the actual ASF balance still increases. We recommend these balances be reviewed as well.

## Second Engagement Update

POLICE indicated that this was a programming issue that has been resolved.
6. World Trade Center (WTC) election data should reside in COPS and WTC data should include an indication of whether, and when, members reclassify their status to WTC accidental disability.

We understand this is in process and recommend a continuation of this implementation. See implementation review for additional information on current status.
7. POLICE should continue to look for ways to streamline report creation by COPS

We understand this to be an ongoing process for POLICE and recommend a continuation of this implementation.

## RECOMMENDATIONS - FIRE

1. Provide corpus funding for FIRE

The one area that FIRE excelled at was security for access to the perimeter of the building and building access. FIRE lags behind all the other systems in almost every other area. FIRE needs to enhance its data management system, move toward a paperless office, invest in disaster recovery equipment and ensure staffing that is sufficient to meet all of its needs. Budgetary restrictions have held back FIRE's progress in these areas. The other Systems have modernized operationally, technologically, and physically after corpus funding was provided to them. Accordingly, we recommend that corpus funding be provided for FIRE. If corpus funding is achieved, FIRE will be better able to make progress on the outstanding issues from prior reviews.

## Second Engagement Update

FIRE also shares IT staff and IT equipment with the department. They believe (and we agree) that FIRE would benefit from having independent staff and independent equipment.
2. WTC election and buy-back service data reside in data files which are separate from FIRE's main database. These data items should reside in FIRE's main database. World Trade Center data should include an indication of whether, and when, members reclassify their status to WTC accidental disability.

We understand this is difficult to implement due to the changing/evolving laws. However, we agree with the prior actuarial auditor that implementation would be beneficial. We recommend an implementation based on current law.

## Second Engagement Update

FIRE indicated that buy-back service was completed. They also indicated that elections are in the system, but eligibility information is separate. Once the election period closes, they expect to update the system.

## 3. The OA should be given access to actual member data for benefit certification purposes

We concur with this recommendation from the prior actuarial auditor.

## 4. Data security can be improved

We understand this is an ongoing process and recommend continuing to monitor and update.

## RECOMMENDATIONS - ALL SYSTEMS

1. Create a regular schedule where the Systems' staff can get together and share ideas

Many of the Systems face similar challenges related to security, disaster recovery, data management and member services. Although the Systems' staffs talk with each other on an "as needed" basis, we believe that each of the Systems would benefit from a more formal and regular meeting to share ideas, such as annually or biannually. This could reduce duplication of effort and lead to quicker implementations (for the Systems that are not first to implement) since they will have the benefit of learning from the other Systems' research, successes and failures.

## Second Engagement Update

FIRE and POLICE indicated that they felt this recommendation was already accomplished through the regular meetings with the legal department. The other Systems felt that anything not covered in the legal meetings was handled on an "as needed" basis. TRS subscribes to CEM Benchmarking services. These services allow TRS to share ideas with the peer retirement systems (nationally and internationally) that also subscribe. We recommend that the other Systems in the NYCRS review this service to determine if it would be useful to them, as well.

## SECTION D

IMPLEMENTATION REVIEW

## IMPLEMENTATION REVIEW

The most recent Administrative Reviews were completed in December 2011 by Hay Group, Inc. We present below the status of the major recommendations made by Hay Group along with brief comments from GRS. It is important to note that the Systems and/or the OA may not agree with every recommendation.

## Status of Prior Recommendations - NYCERS

1. The valuation data collection process can be improved. Hay recommended that NYCERS: (a) be the single source of the data; (b) work with the OA to ensure that the updated computer system can provide the data elements needed by the OA for the valuation; (c) flag data changes for the OA so that the OA does not need to question the changes when performing its data analysis; and, (d) provide the OA with a year-over-year data reconciliation as a validity check of the data.

Status: No progress. OA continues to own the valuation data process, collecting data from several sources to prepare preliminary valuation data files to give to NYCERS. NYCERS plans to resume efforts in determining its options for a pension system replacement in FY 2017. We concur with the Hay Group recommendation.
2. Data issues found in the annual data process which are not easily resolved are deferred for resolution until the following valuation.

Status: Completed. Material items are now resolved promptly.
3. Ongoing valuation data issues with respect to member service and members with multiple member numbers should be completed as soon as possible.

Status: Substantially completed. NYCERS has an automatic update process that generates year end service.

## Second Engagement Update

This process completes the year end calculation of service sometime in February and is approximately $75 \%$ automated. Per NYCERS email sent March 24, 2015 at 11:59 a.m.: "The enhancement of the annual auto generation service program now give(s) more detailed service update for the Transit employees. About 114,154 members went through the PMS program and 39,740 members went through the Transit program. About 38,266 members went through the non-PMS program. The non-PMS program can only update service as full service, it does not have enough payroll details to give less than full service. If one check is short, the system cannot update the service. HHC is the biggest employer still going through the non-PMS program. We are currently working with IT and HHC in an ongoing project to fully automate them."
4. NYCERS should document its active member data process in writing.

Status: Completed. NYCERS has created flowcharts documenting processes.
5. NYCERS does not supply Increased Take-Home Pay (ITHP) and required employee contribution data to the OA for the valuation. When NYCERS' computer system is upgraded, this data should be included in the database and provided to the OA.

Status: In progress. This information is not carried on NYCERS' files, computer upgrade scheduled for FY 2017.
6. NYCERS should include a notation on the active member data provided to the OA, indicating that members have bought back service, and showing the amount of service bought back.

Status: Completed. This information has been provided at the OA's request.
7. NYCERS should check items relating to entry age, date of birth and date of hire, etc. prior to sending the data to the OA.

Status: Completed. This is addressed during data process.
8. Sending paper files to the OA for benefit certification purposes is inefficient and poses a data security risk. These files should be sent electronically to the OA via a secure link.

Status: No longer applicable. NYCERS does not send paper files. However, the OA sends benefit certifications to NYCERS on paper. NYCERS would prefer electronic transmission of this data, but this is the OA's choice.
9. NYCERS should prepare and maintain a written manual that documents the benefit calculation process.

Status: Completed. A procedure manual has been created.
10. When sending retiree payroll data to PPMS, NYCERS does not identify retirees whose pension benefits have not been finalized due to labor contract negotiations that have not been settled. NYCERS should flag this information for the OA.

Status: Partially resolved. NYCERS has completed this to the extent that they can. NYCERS does not have bargaining unit codes. They have built a title code table. This is only part of the information needed, but it is all they have.
11. NYCERS transfers active member data to the OA on compact disc. This is both inefficient and a data security risk. As indicated above, a secure electronic link should be established between NYCERS and the OA for the purpose of transmitting member data.

Status: Resolved - files are sent through secure link.
12. NYCERS instituted a pilot program to cross-train staff members across various functions. This initiative should be continued.

Status: Resolved. This program has continued.
13. NYCERS learns of pensioner deaths by direct notification from the beneficiary, and from Social Security death sweeps. NYCERS should investigate more comprehensive methods of checking for pensioner deaths.

Status: No longer applicable. NYCERS has investigated the availability of death data from several sources such as various private vendors and the New York State and City Health Departments. These entities do not provide data beyond what is being provided by the Social Security Administration. NYCERS sends affidavits annually to pensioners 87 years of age and older to verify each pensioner's continuing eligibility for their pension benefits. Deaths are detected through this process. GRS believes the current process is sufficient.

## Status of Prior Recommendations - TRS

1. Some active member data, such as from CUNY and Charter Schools, are entered into the TRS database manually. TRS should explore secure electronic methods of receiving this data and entering it into the TRS database.

Status: In progress. CUNY payroll is automated but employment information is not TRS is pursuing an automated feed. CUNY is not sure that historical data is $100 \%$ reliable. Charter Schools provide automated data feed that is reviewed by TRS.

## Second Engagement Update

This is part of the Modernization Roadmap developed by TRS.
2. Historically, Charter School data has not been delivered to the OA on a timely basis for the valuation. TRS and the Charter Schools should determine ways to deliver this data earlier.

Status: Resolved. TRS believes the data now gets to the OA when needed. The OA agrees.
3. As TRS updates and improves active member data on its database, it does not flag data changes, which leads the OA to question the changes. TRS should provide data change indicators in the data they send to the OA, so that the OA will be able to reconcile more easily.

Status: Resolved. TRS provides a separate file with exceptional data changes.
4. TRS provides a valuation data reconciliation to the OA, but reconciles from its own prior year data to the current year. Reconciling from the OA's version of the prior year's TRS data would be more helpful to the OA.

Status: No longer applicable. TRS does not believe this is a problem for the OA. Since TRS does not have the final valuation data file (which is created by the OA) it would not be able to perform this reconciliation with any accuracy. The OA agrees.
5. TRS provided on-line benefit certification capability to the OA, but this is not utilized in all cases. TRS and the OA should work on extending this efficient procedure to all benefit certifications.

Status: In process. TRS has automated most calculation types - only death benefits remain manual but will be automated shortly.

## Second Engagement Update

Completed.
6. TRS transfers active member data to the OA on compact disc. This is both inefficient and a data security risk. A secure electronic link should be established between TRS and the OA for the purpose of transmitting member data.

Status: No longer applicable. TRS and the OA are using FTP.
7. Data security can be improved. Consider implementing or developing data security measures such as recertifying access, not allowing network/data access through laptop computers, and training employees on data security procedures.

Status: Completed. Since the last audit TRS has created and filled a new position -security professional - and mandatory security training is in place. Performance evaluations of all employees include information security elements.
8. Some of TRS' technology may no longer be supported by vendors or may become obsolete. TRS should evaluate its technology and make updates if appropriate.

Status: In progress. A five-year engagement related to modernization of systems (the Modernization Roadmap) kicked off in December 2013, starting with replacement of the UPS System.
9. There is no formal succession plan in place at TRS. TRS should identify which positions require a formal succession plan, establish a succession plan and then implement it.

Status: In process. Human Resources is actively involved in creating a strategic plan since more than $50 \%$ of leadership key roles are staff members over the age of 50 . The initiative on strategic planning has been kicked off and is in progress.

## Second Engagement Update

Completed. However, this will also be ongoing.

## Status of Prior Recommendations - BERS

BERS staff indicated that they had not seen the prior recommendations until GRS emailed them a copy in preparation for our visit. Therefore, most of the issues are unresolved.

1. There is no specific documentation of BERS' process to provide active member data to the OA. BERS should document its active data process in writing.

Status: In process. This is part of the development of CPMS.
2. BERS does not supply ITHP and required employee contribution data to the OA for the valuation. The OA and BERS should determine whether this data is reliable, and if so, the data should be provided to the OA. When BERS' computer system is upgraded, this data should be included in the database and provided to the OA.

Status: In process. This is addressed in the development of CPMS.

## Second Engagement Update

BERS supplied a test file to the OA for the June 30, 2014 Valuation.
3. BERS does not provide a year-over-year data reconciliation to the OA to help in the valuation data process. BERS should provide a data reconciliation to the OA.

Status: No longer applicable. BERS does not receive the final valuation file from the OA and is therefore unable to provide a reconciliation from that point.
4. BERS does not supply full-time employees' service and part-time employees' hours to the OA for the valuation. The OA and BERS should work together to validate this data, and if valid, it should be provided to the OA.

Status: In process with the development of the new system.
5. Sending paper files to the OA for benefit certification purposes is inefficient and poses a data security risk. These files should be sent to the OA electronically via a secure link.

Status: Unresolved. GRS believes that electronic copies are ideal, but that paper copies are acceptable, so long as proper precautions are taken.

## Second Engagement Update

In process. BERS has completed the technical piece and a test. The business process is still being developed and will be part of the new system.
6. BERS' benefit calculation process is not fully documented. BERS should prepare and maintain a written manual that documents the process.

Status: Resolved.
7. The transfer of member account balances to TRS and other Systems is typically delayed because the process must be initiated by the member. This should be resolved legislatively.

Status: Not applicable. BERS does not agree that this should be a recommendation for BERS, since it has no legislative authority.
8. BERS should place an indicator in PPMS if a member's benefit has not been finalized.

Status: Resolved.
9. The active valuation data process depends too heavily on the involvement of Prudential. BERS should complete the effort to replace the Prudential data system. The OA should be consulted on the data elements to be included in the new system, and should be given access to the new system for benefit certification purposes. An outside vendor should be engaged to provide data back-ups and business continuity protection services.

Status: In progress. This will be resolved with the implementation of the new system and/or as a result from the development of a new business continuity plan that is currently being developed.
10. BERS transfers active member data to the OA on compact disc. This is both inefficient and a data security risk. As mentioned above, a secure electronic link should be established between BERS and the OA for the purpose of transmitting member data.

Status: Partially Resolved. Most data is transferred via secure FTP.
11. Given the current data system arrangement, efficiency and data security can be improved.

Status: In progress with the development of the new system.

## Status of Prior Recommendations - POLICE

1. The active member valuation data provided to the OA is of high quality, but there is an ongoing accuracy issue with respect to the service reported for a small number of members. This accuracy issue should be resolved.

Status: Resolved. As a result of a revised annual statement process that includes service data, the quality of service data has improved dramatically.
2. WTC election data should reside in COPS and WTC data should include an indication of whether, and when, members reclassify their status to WTC accidental disability.

Status: In process. This is in development, with user testing scheduled for late January 2014.

## Second Engagement Update

Completed.
3. POLICE does not provide a year-over-year data reconciliation to the OA to help in the valuation data process. POLICE should provide a reconciliation report to the OA.

Status: No longer applicable. OA has not requested this.
4. Sending paper files to the OA for benefit certification purposes is inefficient and poses a data security risk. These files should be sent to the OA electronically via a secure link.

Status: Unresolved. Recommendation was rejected by POLICE. Paper transmission is still happening, as System was developed to generate paper, not electronic files. Setting up a secure link would be more work for POLICE. GRS believes that electronic copies are ideal but that paper copies are acceptable so long as proper precautions are taken.
5. It continues to take a relatively long time from member initiation of the retirement process to finalization of the benefit. The POLICE and the OA should explore ways to reduce the time it takes to finalize benefits, including determining whether the OA needs to require certification of all benefits.

Status: GRS does not believe this is within the control of POLICE. Current backlog is due to the length of the collective bargaining process - at one point there was an 18 month backlog but COPS system increased bandwidth (to allow for a larger volume of cases to be processed), decreasing backlog to 3-4 months. Normal turnaround is 2-3 months.
6. A large period of time elapses between separation from service and electing a benefit option, which could allow for anti-selection against the System. POLICE should establish a procedure whereby a member elects an option earlier in the process.

Status: No longer relevant. POLICE have rejected this recommendation.

## Second Engagement Update

POLICE expect a 4-6 week completion time frame when not awaiting contract settlements.
7. POLICE experienced a data security breach during the course of the First Engagement Administrative Review. POLICE should share the findings of its investigation of the incident with the other Systems to help prevent similar incidents at all the Systems.

Status: Completed. All the Systems are aware of the breach. The missing information is back on site, locked up physically.
8. POLICE should continue to look for ways to streamline report creation by COPS.

Status: In process and ongoing. Process improvements continue to be made.
9. Data security can be improved.

Status: Completed. POLICE have replaced passwords with fingerprint scanners.

## Second Engagement Update

This task is also ongoing as technology evolves.
10. Tier 3 member data should be integrated into COPS.

Status: In process. Specifications have been developed and are in the review stage.

## Second Engagement Update

The expected completion timeframe is Summer, 2015. As of the date of our meeting in January 2015, POLICE have shared information with the OA and are awaiting feedback.

## Status of Prior Recommendations - FIRE

1. There is no specific documentation of FIRE's process to provide active member data to the OA. FIRE should document its data process for active members in writing.

Status: No longer relevant. OA's detailed data request provides sufficient documentation to FIRE. OA gives file layout to pension unit, BTDS (computer group of Fire Department), documentation is developed to be understood by any computer person.
2. WTC election and buy-back service data reside in data files which are separate from FIRE's main database. These data items should reside in FIRE's main database. WTC data should include an indication of whether, and when, members reclassify their status to WTC accidental disability.

Status: This is difficult to implement because the law is constantly changing/evolving. FIRE has a database with 12,000 members on it with much of the information. This file is provided to the OA.

## Second Engagement Update

Buy-backs are on EUPS. WTC election data is difficult to implement because the law is constantly changing/evolving. During the Second Engagement, FIRE informed us that a new law just re-opened the period so that new members could apply.
3. FIRE does not provide a year-over-year data reconciliation to the OA to help in the valuation data process. FIRE should provide a reconciliation report to the OA.

Status: No longer applicable. FIRE does not receive the final valuation file and is, therefore, not able to reconcile to it. OA has not requested this from FIRE.
4. Sending paper files to the OA for benefit certification purposes is inefficient and poses a data security risk. These files should be sent to the OA electronically via a secure link.

Status: Resolved. This was resolved by removing SSNs from the paper files sent.
5. Active member data is entered into FIRE's database manually, which increases the risk of errors. When FIRE implements a new data handling system, the system should ensure that data can be entered electronically.

Status: Completed. New system has addressed this.
6. Data used for preparing non-finalized benefit calculations must be printed out and stored on paper because the current data system cannot retain historical data. FIRE's new data system should be able to store historical data.

Status: Completed. New system has addressed this.
7. In the benefit calculation process, 3-year average salary is manually computed. We understand the new data system will contain salary history data and sufficient logic to do this computation for members appointed prior to July 1, 2000.

Status: Completed. New system has addressed this.
8. Reserve transfer calculations are calculated manually. The new computer system should contain logic to automate these calculations.

Status: No progress. This issue is not within FIRE's control. FIRE is open to pursuing this if OA provides the logic. However, these cases are very rare. GRS recommends this item be removed from the list.
9. The OA should be given access to actual member data for benefit certification purposes.

Status: No progress.

## Second Engagement Update

FIRE indicated that this could be worked on, but would require a number of changes and funding for the administrative costs.
10. A large period of time elapses between separation from service and electing a benefit option, which could allow for anti-selection against the System. FIRE should establish a procedure where a member elects an option earlier in the process.

Status: Not applicable. This issue is largely outside of FIRE's control. The issue is largely driven by the fact that contracts are still open.
11. With regard to disaster recovery of data, FIRE has not tested the retrieval and restoration of its data backups. This should be tested periodically.

Status: Completed for back-up but not for disaster and relocation. Tests are performed to make sure restoration happens.
12. Data backups are only sent offsite weekly. This should be done daily.

Status: Changes are backed up daily and sent offsite weekly.
13. Data security can be improved.

Status: In process. FIRE does not allow network or data access through laptop computers. More could be done with corpus funding.

## 14. Corpus funding.

Status: Corpus funding has been approved for all Systems except FIRE.
Comment: Corpus funding for the other Systems has allowed investments in technology and staffing. FIRE thinks corpus funding is unlikely due to autonomy of the Fire Department.

## APPENDIX 1

FINDINGS BY ENTITY (OA AND EACH SYSTEM)

## Meeting with the OA

The Administrative Review consists of a review of the procedures, database and communications between the Office of the Actuary (OA) and each of the five major Retirement Systems (Systems) of New York City with regard to the valuation data and benefit certification. GRS met with the OA to begin the first engagement review. During that meeting the OA described the lines of communication between the OA and each of the Systems. The processes currently used have some built in redundancies which provide useful crosschecks.

The OA triggers the data process with a written request in early June to each of the Systems (and each of the other payroll providers) detailing precisely each data item required by the OA. In June the OA follows up with each System to discuss the data request and iron out any related problems in the "kick-off" meeting. In the past there were also follow-up meetings. The followup meetings have not been needed recently.

Data is currently transmitted through FTP for FIRE, POLICE, TRS, BERS, a number of NYCERS providers and Buck.

In addition, the OA tracks Union employment contracts and the Actuary may adjust salaries in the database when conditions warrant. In addition to member data, the OA receives the contracts from the Office of Labor Relations (after sending a data request) and the assets from the Systems and the auditors.

The OA has not developed explicit service purchase assumptions or promotion assumptions but does account for promotions indirectly within the salary scale increase assumption when able (applies to all Systems).

During the meeting with GRS, the OA described the process for FIRE first, and then described the differences for the other groups. The results of the GRS administrative review with the OA are presented in a similar manner. First we present the review of FIRE and then we present the additional information related to the other Systems.

## Meeting with the OA

## FIRE Administrative Review with OA



The OA documents all steps in a binder and then uses that binder as a guide for the next year. All business rules are documented in the binder. The OA indicates that it attempts to review all data within 5 business days of receipt for consistency and reasonableness. A more detailed data review is then subsequently performed. The data file processing is described as follows:

Step 1: Break data down into metrics, check for blank fields, duplicate records and reasonable ranges;
Step 2: Reconcile data with prior year;
Step 3: Send System a memo identifying any discrepancies;
Step 4: Fix reconciliation with additional information from System; and
Step 5: Transmit data to Buck explaining reconciliation and detailing the process and any remaining discrepancies. All edits that the OA makes are communicated back to the System (and any other relevant party).

After Buck receives the member data, they perform additional checks. Any edits they make are communicated back to the OA.

In all, there are five parties involved in the process: OA, PMS, PPMS, FIRE, and OLR.
The typical time frame from data request to valuation ready data is three months. The OA prefers to have all Buck's results mid-November, with a valuation completion target date of midDecember.

Valuation results for all five Systems are published by the OA at the same time.

## Meeting with the OA

## POLICE Administrative Review with OA

## POLICE Valuation Data Flowchart



The OA indicated that the process for POLICE is largely the same as for FIRE and includes the same number of data requests and the same number of entities involved in the data handling. Some special issues related to POLICE are as follows:

- COPS (the POLICE active database administration system) has some issues with the service field that POLICE are working on improving;
o Second Engagement Update: this issue is improving
- Different methods are used for handling loans across the Systems;
- For POLICE, there was a liability load due to concerns with data related to loan information (this only relates to the 6/30/2010 valuation); and
- POLICE flags service purchases and service buybacks in the data provided to the OA.


## Meeting with the OA

## TRS Administrative Review with OA

TRS Valuation Data Flowchart


Some special issues related to TRS include:

- Retiree payment data comes from PPMS (for all Systems). New retiree data is also provided by TRS. The TRS information contains non-changing data elements that are not in PPMS. The OA maintains a database going forward that is developed from the matured information provided by TRS and PPMS;
- The Charter Schools provide the data to TRS and TRS provides to OA;
- Many of the new retirees are reported as active/inactive (or disappear) due to timing and the end of the school year (the OA will identify members that dissappear from reporting through their reconciliation process so that they are included in the valaution);
- Pensionable earnings are more complicated:
o Base Pay
o Summer Pay (Chapter 683)
o Per Session (e.g., coaches stipend)
o Coverages (covering for another teacher that is absent)
o $6^{\text {th }}$ Period Pay
o Bonus (based on student performance)
- There is more reliance on accountants for asset information due to the TDA, variable and fixed funds (TRS has five variable funds).


## Meeting with the OA

## Second Engagement Update

- Over the last couple of years, TRS has received fewer questions from the OA and believe they are much closer to meeting the OA's needs than in the past. The OA agrees.


## Meeting with the OA

## BERS Administrative Review with OA

## BERS Valuation Flowchart



Some special issues related to BERS include:

- Complete infomation on part-time employees is requested by the OA, but has not been historically provided to the OA;
o Up to $2 / 3$ of members are part-time
Complete data for part-time employees is not provided, such as hours worked in previous year, hours expected to work in upcoming year, hours constituting full-time, etc. Second Engagement Update -- (Per BERS a test file of part time information was provided to the OA for the 2014 valuation). Per OA, this file was not received.
o OA develops service for valuation based on date of hire
o Department of Education considers some positions full-time even though job requires less hours than other full-time positions
All retiree information comes from PPMS; Second Engagement Update -- BERS also provides a list of new retirees, but the OA does not have a record of receiving this file either;
- For new retirees, valuation data is verified against data submitted for benefit certifications; and
- BERS only has 1 variable fund, versus 5 for TRS.
- Second Engagement Update -- BERS is in the process of upgrading their system and expect to go live in February 2016.


## Meeting with the OA

## NYCERS Administrative Review with OA <br> NYCERS Valuation Flowchart



Some of the special issues related to NYCERS include:

- The data collection process differs substantially from the other Systems (as illustrated above);
o OA collects data from several sources and prepares preliminary valuation files to give to NYCERS
o NYCERS receives OA preliminary files and processes the data in its database
o NYCERS sends valuation data back to OA after processing preliminary valuation files
- The bankruptcy of the Off Track Betting Corp. and its on-going accrued (and on-going) contributions; and
- Second Engagement Update -- Upgrade of the NYCERS System scheduled for 2017.


## Meeting with the OA

## Benefit Calculations - Second Engagement Updates Underlined

During the administrative review for the OA, we also met with representatives of the Benefit Certification Services Division (CSD). The discussion for part of the review started with NYCERS. For the other plans, the differences were highlighted.

General issues/processes that apply to all Systems include:

- OA CSD has a specialist for each System;
- Each specialist is versed in at least 3 or more Systems to provide back up;
- There are a list of certain types of cases that are reviewed by the manager;
- All Systems write computation programs with OA assistance and OA will match results independently; and
- OA handles all cases; the Actuary certifies all cases.

For big picture issues, the OA may consult with Buck for advice. OA is designing an EXCEL spreadsheet to calculate Social Security benefits for Systems' use in calculating Social Security offsets. To be rolled out to Systems in spring/summer of 2015, and the Systems will maintain this going forward.

For NYCERS, the process of benefit certification was described as follows:

- NYCERS emails the OA a list of cases;
- NYCERS tells the OA what to expect during the Corporate Counsel meetings;
- OA logs into NYCERS system (web based) and reviews/certifies calculations;
- 415 limits are checked for all cases;
- Two 415 reports are generated (1 for base benefits; 1 for excess plan);
- FAS calculations are checked;
- Cases marked computerized are done by NYCERS and reviewed by OA;
- Cases marked manual are completely done by OA;
- The OA has a doer, checker, reviewer process;
- Every 10th case is pulled and reviewed in greater detail;
- The OA estimates that the error rate for NYCERS cases is 4-5\% (most errors are related to calculation of FAS, age or selection of factors);
- Recalculations and re-certifications are performed if contracts are settled late; and
- Volume of calculations have doubled as a result of recent contract settlements.

Issues/processes that differ for POLICE (99\% choose Straight Life Annuity) and FIRE include:

- End of year - OA gives complete spreadsheet for POLICE \& FIRE
- Calculations are delivered to the OA manually by messenger (not by OA choice - see page 28);
- Calculations are checked for reasonability;


## Meeting with the OA

- POLICE and FIRE wait until contracts are settled (this allows the death gamble benefit to be operable for a longer time than would be the case if contracts were settled sooner) to finalize a case (not a desirable result from OA perspective);
- OA computes the options for POLICE and certifies the computation after the option is elected by member; and
- FIRE uses a program developed by OA to generate the option letter; OA certifies the calculation after an option is elected.
- FIRE gives data sheet with parameters and independent checks.

Issues/processes that differ for TRS include:

- Most computerized process;
- OA can VPN directly into the TRS system (UPS - Unified Pension System);
- Certification is done electronically;
- Manual cases (about 5\%) are delivered via messenger or FAX, if rush;
- Error rate is estimated to be approximately $2 \%$ for TRS (OA corrects/identifies errors for TRS);
- OA has monthly meetings with TRS on what to expect in terms of volume; and
- TRS staff recently discussed batch processing for recalculations due to settlements - the Actuary decided against this.

Issues/processes that differ for BERS include:

- Certification requests are sent to the OA manually through messenger;
- BERS sends email alerts so OA knows how many cases to expect (Second Engagement: BERS sends cases once per month);
- BERS/OA is trying to create an electronic approach;
- BERS uses a program generated by the OA to perform the calculations;
- OA reviews the calculations; and
- BERS messenger picks up the certifications when OA completes them.


## Security

The OA is in the process of updating its computer systems. One of the recent improvements was the implementation of the secure FTP (file transfer protocol) site. This site is available for transferring electronic data between the OA and each of the Systems as well as the OA and any other vendors (such as Buck Consultants and GRS). As users of this system, we have seen firsthand how data is transmitted. All data that has any identifiable member information (Social Security numbers, pension numbers, dates of birth, etc.) are double encrypted and uploaded to the secure FTP site. Files that are uploaded must be transferred (downloaded) the same day. Data may not reside on the FTP site overnight. Files are only allowed to stay on the FTP site for one day. GRS had to acquire special software to handle the un-encryption process.

## Meeting with the OA

Only a limited number of OA senior staff have remote access to the OA network from outside the office.

The OA office is kept locked and access is granted from within. The building has security which screens people before allowing access to the elevators.

## Second Engagement Update

Most email transmissions use encryption, including frequent estimates for TRS and NYCERS. The CSD does not use FTP with the Systems.

## Meetings with Each System

## Findings Related to all Systems

Discussions with all of the Systems confirmed the following:

- The OA has an excellent working relationship with all of the Systems;
- The Systems and the OA have taken huge strides forward in the ability to transmit data securely with almost all transmissions occurring though secure FTP;
- The OA's annual kick-off meeting and data requests provide the necessary communications and explanations that the Systems need to fulfill the OA's data needs;
- The Administrative Review is one of several audits the Systems go through regularly which places a burden on System Staff. The Systems' staffs do not view the annual valuation process as service/value provided to the Systems by the OA. Rather, they view this as a service/value provided to the City/Comptroller by the OA that requires their participation. The Systems should be the single source of data for the OA and should maintain a historical file of information sent to the OA; and
- The Systems should develop a regular mechanism to allow for sharing of ideas on operations (such as new technologies, security procedures, business continuation plans, etc.)

Other recommendations:

- Currently the OA produces formal valuation reports for POLICE and FIRE. The OA should produce a formal valuation report for each of the other Systems; and
- Until such time as the OA is able to produce full valuation reports, the OA should include the summary of benefits in the Appropriations Letters (instead of referencing the benefit descriptions in the CAFRs).


# Meeting with the New York City Employees' Retirement System (NYCERS) 

## Data Processing for Valuation Files

The OA drives the valuation process, holding an annual kick-off meeting at NYCERS and ultimately creating databases in which NYCERS fills in the pieces. NYCERS has a good relationship with the OA, noting that they work well together. However, as can be seen in the flow of data chart under the OA's section above, the OA gathers data from a multitude of sources and creates an initial valuation file that NYCERS then reviews and supplements. While the OA has indicated that this process is working well, we agree with the prior actuarial auditor that ideally, NYCERS should be the single source of data for the valuation files. However, the OA may wish to continue to receive files from other sources for cross-check/data verification purposes.

Currently the OA gathers information from the Pension Payroll Management System (PPMS), the city active Payroll Management System (PMS) and other employers payroll information. However, NYCERS is the source for data entered into PPMS and they collect pension related information from all the employers for active members on a monthly basis, so they should have all the data the OA needs within its database.

The PPMS file is produced electronically and month-by-month changes are tracked in retiree data. NYCERS screens the active and pensioner valuation files with its own edit checks reviewing for anomalies which are sent to the Employer who then updates and downloads the information.

NYCERS does not provide data on actual ITHP balances, minimum employee contribution balances and minimum ITHP balances -- the OA estimates these amounts and adds the fields to the active valuation file.

The NYCERS pension system is called PROD. The OA was not involved in the development of PROD. NYCERS is researching the replacement for PROD. We recommend that the OA be involved so that the new system can easily generate the data needed for the valuations.

One data element that was discussed with NYCERS but was not discussed with the OA or any of the other systems was what NYCERS referred to as the non-member file. NYCERS downloads and maintains a file of City employees that are not members of NYCERS. This would include employees who are members of the other Systems or employees who are not members of any of the Systems. They maintain this file historically in order to expedite service purchases or service reinstatements in the event that someone on this file becomes a member of NYCERS in the future. We recommend that the OA discuss this file with NYCERS to determine if the OA can use the data for developing service purchase assumptions.

# Meeting with the New York City Employees' Retirement System (NYCERS) 

## Data Processing for Benefit Calculations

NYCERS has a self-serve website ("My NYCERS") where members can (or will soon be able to):

- Review member profile information;
- Complete loan applications (if eligible), including credit card payment capability;
- Use estimators for loans, retirement benefits and buy-backs; and
- Download Annual Disclosure Statements including Form 1099 and Pensioner award letters.

In addition to My NYCERS, an Annual Disclosure Statement (ADS) is produced by the Communications Division and sent to members (annually) as well as being posted on-line. Each July and December, estimated benefit letters are sent to those who are retirement eligible. COLA letters are sent every September to the entire pensioner population (including those not receiving a COLA). Lastly, NYCERS also offers other support including a call-in center, and monthly in-house seminars.

When members are ready to start the retirement calculation process, they can file applications in person at a walk-in center, or by mail. Most NYCERS' calculations of pension benefits are automated. Complicated cases require manual calculation. The OA certifies all benefit calculations. All 415 calculations go to the OA one-year post-retirement at which time the necessary accounting adjustments are made since the member's benefits are not affected. NYCERS would like the OA to sign off on an automated program for benefit calculations so that individual calculations no longer require paper transmission of certification. We recommend that the OA consider such an arrangement which would ultimately free up OA resources for other uses.

The benefit computation process follows this general outline:

- Member files a retirement application in person by visiting the Client Services Center or by mail;
- Counseling is available upon request;
- Once retirement date arrives, the case is processed;
o Service and member contributions are verified
o Option letter is sent to member
- Member has 60 days to elect an option shown in the retirement application (otherwise the maximum benefit is paid);
- A PCEF file is transmitted to FISA monthly;
- Benefit is paid at $70 \%$ to $80 \%$ until finalization (based on certain formulas);
- Benefit Finalization typically occurs 2-3 months after retirement;
- Fifteen months after retirement, case is reviewed;
- OA sent case (electronically) to certify benefits; and
- OA prints out details, signs and messengers certified document back to NYCERS.


# Meeting with the New York City Employees' Retirement System (NYCERS) 

## Security and Business Continuation

NYCERS has a comprehensive disaster recovery plan that is practiced twice a year. Testing performed in April 2013 showed ability to get everything back up within 4 hours (reduced from 72 hours in previous testing), in part due to the Storage Area Network. The Mainframe powers up in an hour. An alternate location exists in Long Island City (with capacity for 150 employees) for running the operations in case of an emergency. In addition, vulnerability/penetration testing is performed on an annual basis. Data is kept secure by storing in a secure folder, with hardware encryption (VTL). All data transmissions use secure FTP. NYCERS employees cannot connect to servers through the Internet, and cell phone use is banned on premises. NYCERS addressed document imaging and scanning in June 2013. The document destruction/scanning policy incorporates a 9-month retention period and Bergen Street has a physical paper warehouse.

There are approximately 13 agencies/vendors involved with data for NYCERS. For each vendor or agency that NYCERS supplies data to, they enter into a contract where that agency/vendor assumes responsibility for data security once it is in their possession. NYCERS views the valuation data as owned by the OA.

Summary Evaluation: The recordkeeping and data collection procedures used by NYCERS are generally sound and result in integrity of stored data that is generally good. Modernization of the data system is scheduled for FY2017. We recommend that NYCERS involve the OA in this process to ensure that all of the OA's data needs (and/or its wish list) are considered in the development of the new system. NYCERS is also currently exploring converting to virtual servers. We recommend that they consult with POLICE who are in the process of implementing virtual servers. We recommend that NYCERS consult with TRS on its security educational program for employees of the retirement system (during our tour in the First Engagement, we did see one or two employees who had their cell phones out on their desks).

## Second Engagement Update

NYCERS rolled out virtual desktops to improve efficiency.

# Meeting with The Teachers' Retirement System (TRS) 

## Data Processing for Valuation Files

TRS has a data quality management group which recently updated practices for data completeness and accuracy. New TRS employees can easily pick up the data process due to file structure documentation and a processing sheet that lays out the sequence of data steps, user verification, etc. The whole function checks quality, using generic business rules and ranges. Data issues are resolved by going back to the source of the information, and checking the end results. Last year the system implemented secure file transfer (SFTP) through DoITT. TRS obtains human resource and salary data as of June 30 from the various employers covering TRS members, and receives a payroll file from FISA entered into the TRS database each payroll period. TRS uses the salary data and other available data on new members, withdrawals, member contributions and ITHP balances to create an active valuation file. The OA independently obtains salary data as of June $30^{\text {th }}$ for TRS members from the Office of Personnel Administration (OPA), FISA, and miscellaneous employers covering TRS members. The OA uses this salary data to fill in any missing salary information in the data provided by TRS. The only group that does not send information to the OA is Charter Schools. TRS captures wage and salary data through an Interface System for those TRS members employed at Charter Schools. There is also a manual process to capture missing salary information and/or to reconcile data. This occurs because reported wages are not contractual salary. A project to further automate this process is underway.

TRS receives Charter School data in August and provides it to the OA in September. TRS is responsible for populating the data elements in PPMS and is the primary source of the data related to TRS members. It maintains data on terminations, deaths and new pensioners on its own system and sends that to the OA. The OA uses the information from TRS, PMS (and the other employers' data), and PPMS to develop the valuation files. The OA subjects the active and pensioner valuation files to thorough edit checks. The number of questions from the OA has decreased in recent years as the data process has improved. TRS finds value in the annual kickoff meeting with the OA, views the OA as colleagues, and works well with them via designated TRS and OA point persons. One example of the collaboration: after Hurricane Sandy, TRS employees used part of the OA's offices and facilities to provide member service (including processing retirements) due to the damage at 55 Water Street.

Data is sent by TRS to DOE and FISA electronically, and a retiree feed is prepared on a monthly basis. TRS supplied a list of vendors and has established secure methods of transmitting data to each vendor. Vendor security depends on the level of information transmitted, and a long and very detailed security clause ("Appendix A" of that document) is included in contracts. Once a month a death match is run on the active population, and deaths are double checked against City records. The retiree death match uses CHARMS.

## Data Processing for Benefit Calculations

The same database that is used to generate data for the OA is also used to develop Annual Benefit Statements (ABS), which serve as pension estimates for members. TRS notes that these are often compared to benefit estimates provided to members by the United Federation of

## Meeting with the Teachers’ Retirement System (TRS)

Teachers. Quarterly account statements are sent to all members. These include actual contributions, ITHP amounts, loan and variable account information. Account balances are available on-line for all members. On-line features are being enhanced to include TDA enrollment and other information, investment elections, changes in beneficiary designations and other information, changes of address, a loan calculator, loan applications and a benefit estimator.
The TRS website contains all data for pension calculations, along with many self-service features. A walk-in center is also highly utilized. Nearly all calculations of TRS' pension benefits are automated. Complicated cases require manual calculations. Eight TRS staff members perform and check calculations, and the OA separately verifies and certifies each benefit calculation. TRS sends the OA an electronic work list with a calculation sheet as an attachment to compare against OA calculations. The OA has on-line access to the TRS system for inquiry/approval for pension certifications as well as imaged records. Lastly, TRS notarizes and scans retirement application documents into the system. The usual timing is $3-4$ months from member initiation of the retirement process to benefit finalization. The benefit computation process follows this general outline:

- Members walk in on $2^{\text {nd }}$ floor to file application;
- Counselors review application with member and collect any additional information (such as age verification documentation);
- All documents get scanned and a workflow project is started;
- Once retirement date has passed, benefit calculations are preformed;
- TRS gives an initial advance payment of approximately $85 \%$ of calculated benefit;
- Benefit calculation is finalized within 3 to 4 months after effective date of retirement;
- A lump sum payment is made the month the benefit is finalized for the difference between what was paid and the actual benefit (interest may be paid at 5\%, depending on the cause of the delay);
- Members must elect payment option on the application and can change the payment option up to 30 days from the effective date of retirement. TRS provides the retirement payment options and all other informative information on the Annual Benefits Statement; and
- OA logs into TRS’ system to see case file and perform benefit certifications.


## Security and Business Continuation

Hurricane Sandy presented a 3-month test of the comprehensive disaster recovery and business continuation plans. TRS currently has a trailer solution for business continuation. Sandy exposed some weaknesses (and strengths) of the plan and TRS is developing revisions based on this experience.

## Second Engagement Update

TRS does periodic analysis of both policies and technology. They recently increased security staff and added additional roles based on recommendations from a security analysis company.

## Meeting with the Teachers' Retirement System (TRS)

A new position was created and filled - Information Security Officer - which has led to continuing focus on data security and recovery. The main data center is located in New Jersey. Data is backed up regularly. While $99 \%$ of the data that is electronically transmitted is encrypted, TRS uses Brooklyn City Storage for historical paper member case files (all incoming correspondence has been scanned since the 1990's). A retention policy is in place which details which records can be kept for how long.

TRS has recently made employee security education the focus of security enhancements. They have a well-developed program that educates TRS employees that security begins with them. This program includes a policy that prohibits charging of cell phones from employees' computers and a clear desk policy that requires sensitive information to be replaced in secure storage after usage. TRS is moving to a no paper policy but is not there yet. Although we applaud these policies, during our TRS Premises walk around we did see one desk with a cell phone violating the policy and we saw one area where boxes were stacked on the floor with member information waiting to be taken to offsite storage. We understand that these boxes could accumulate and sit on the floor anywhere from two to eight weeks before being taken offsite. Although we were told the floor was secure and the doors were locked with cameras at every door, there did not appear to be a substantial difference in the security of this portion of the office compared with the other portions of the office. We believe that having a clean desk policy while allowing boxes of sensitive material to accumulate on the floor seemed to be counterproductive. We recommend that the procedure of accumulating material for offsite storage be reviewed for consistency with the general security policies.

Summary Evaluation: TRS continues to use technology and experienced staff to provide complete valuation data to the OA. The data process works well, with the number of questions from the OA decreasing - perhaps due in part to the ABS, which provides a participant level check of the data. Providing on-line access to benefit calculation detail enhances communication. There is a comprehensive disaster recovery plan. Security, backup and disaster recovery procedures are sound. We discussed the following recommendations:

- Continuing to share TRS security and business continuity approaches with the other City Retirement Systems;
- Giving future actuarial auditors "modified" data that does not contain certain memberspecific items (SSNs, dates of birth, etc.); and
- Translating laws relating to Tier VI into business rules.

We recommend that the Comptroller review the data security transfer language in the TRS vendor contracts (Appendix A) to determine if this language should be replicated for other contracts that involve transfers of member data (such as the Actuarial Auditor, and contracts through other agencies like Buck Consultants’ contract through the OA).

We were impressed with the security education of TRS employees and recommend that information regarding this program be shared with the other Systems.

# Meeting with the Board of Education Retirement System (BERS) 

## Data Processing for Valuation Files

Prudential Financial, Inc. (Prudential) provides administrative recordkeeping services for BERS and plays a major role in providing valuation data to the OA. BERS sends active new member and withdrawal information to Prudential. Prudential collects information from PMS and enters data into the system for BERS' staff to review. Once BERS completes the review, Prudential sends the information to the OA.

Currently, once BERS and Prudential complete the review, Prudential sends the active valuation data to the OA for use in the valuation. The OA does not make many corrections, or do they request a reconciliation (the OA indicates that they do request a reconciliation). The active valuation file supplied by Prudential includes actual employee contribution and actual ITHP balances for Tiers 1 and 2 but does not contain data on minimum employee contributions and minimum ITHP balances. The OA estimates these fields for valuation purposes.

Second Engagement Update -- BERS provided an estimate of required amounts for Tier 1 and Tier 2 based on a sample for the 2014 valuation and is working with the OA to improve this reporting. The OA gets the retiree data from PPMS.

BERS has hired Vitech to develop a replacement system that will be run in-house -- the Comprehensive Pension Management System (CPMS). The new system will be more flexible than the current system. It will also give staff greater control and eliminate reliance on Prudential.

Second Engagement Update -- The estimated live date for the new system is currently February 2016.

BERS does not employ a formal set of business rules to verify data. They do verify data against the members' case files. In addition, they have monthly reconciliation procedures performed by its Fiscal Operation Department to ensure that BERS agrees with the Comptroller's Office for fiscal integrity. In addition, BERS has a Quality Assurance unit that ensures proper posting of members' accounts for payroll and lump sum contributions. There are a lot of part-time members. These members present a challenge because the definition of part-time status varies based on employment category. Service data comes from the DOE. For some members, BERS is able to compare service against digital records but for others it has to compare it against paper records. As a result, providing reliable service information for part-time members in the timeframe for the valuation has been difficult. Therefore, the OA uses actual pay and annualized service even though the benefit is based on annualized pay and actual service. BERS has performed an extensive study on the Department of Education's part-time workers and has created a solution within CPMS that will assist in providing more reliable service information to the OA.

## Meeting with the Board of Education Retirement System (BERS)

Not all new DOE employees are automatically added to membership. Some employees are mandated members of BERS. These members are added to BERS membership either when they sign up or when they appear on payroll. They are added retro-actively to their date of hire. Membership for other employees is optional. These employees do not become BERS members until they apply to join. These members can buy back service to their date of hire (any time after becoming a member of BERS).

Communication between the OA and BERS is open and on very good terms. The data request provided by the OA is clear and sufficient for staff. The data request together with the annual kick-off meetings provides BERS with all the information they need to respond to the data request.

GRS recommends that BERS and OA meet as soon as possible to ensure that the new Vitech system provides all the data requirements of the OA.

## Second Engagement Update

The OA has representatives on a steering committee for the new system and has been given the opportunity (and continues to have the opportunity) to provide input on the new system.

## Data Processing for Benefit Calculations

Pension calculations are done in-house using BERS benefit calculation software and sent to the OA for certification in the form of a hard copy. BERS identifies cases that are over IRC 401(a)(17) and 415 limits for the OA. The OA computes TDA annuitizations, if that option is elected. BERS would like to streamline the certification process. They have reached out to the OA to see if there are options available other than having the OA certify every calculation, such as certifying samples or certifying a program. There is a 4-5 week turnaround for certifications.

## Second Engagement Update

Approximately $75 \%$ of members have settled their expired contracts, however, the retro payments have not been made so there are still a lot of recalculations to be performed. BERS expects to handle these recalculations with current staff and overtime. There are still ongoing discussions regarding the handling of the deferred retro payments in the benefit recalculations. BERS has been meeting with the OA and legal to discuss this issue.

## Security and Business Continuation

BERS follows the Department of Information Technology and Telecommunications (DoITT) security processes. BERS, however, vaults data which is available for 1 year. Backups are performed daily, monthly and annually. Iron Mountain is used for offsite storage and back-up. There is no formal physical relocation plan (part of a business continuity plan). However, BERS

## Meeting with the Board of Education Retirement System (BERS)

hosted some TRS staff after Hurricane Sandy. BERS is currently working with DoITT on tying BERS' backup disaster recover connectivity to DoITT's backup data center location.

Second Engagement Update -- BERS is currently working on the development of a draft disaster recovery plan.

BERS only has two vendors/agencies in which they share member data with: the OA and Prudential (which will be replaced once the new Vitech system becomes operational).

Summary Evaluation: The recordkeeping and data collection procedures used by BERS are generally sound and result in integrity of data reported to the OA that is good with the exception of part-time service. We recommend that this data be reviewed for the new system (CPMS) with the goal of being able to provide part-time service to the OA for the annual valuations. BERS security, business continuation and disaster recovery plans lag behind NYCERS, TRS and POLICE. We recommend BERS review and update these areas and reach out to the other Systems for information on what has worked and not worked (for each System) during Hurricane Sandy. BERS has indicated that security planning, beginning with an independent security assessment, has been recommended for inclusion in the budget. Business continuation and disaster recovery planning are being developed and incorporated into CPMS.

## Meeting with Police Pension Fund (POLICE)

## Data Processing for Valuation Files

Initiated in 2005, the Comprehensive Officer Pension System ("COPS") contains records of all POLICE active members, with the exception of a very small subset (five Tier I members). COPS receives automated feeds from payroll/Police Department (PD) as well as from the Business Units. POLICE performs initial checks on the information entered by the various PDs, and communicates its findings back to the PD. Each COPS module was designed with built-in business rules to validate entries. Retirement information is entered into PPMS by POLICE.

A set of batch programs produce the data requested by the OA. Data processing for the OA is completed during August or September. The OA provides support to POLICE through effective open communication, which consists of monthly meetings with the OA and legal counsel. One item on the POLICE wish list is to set up FTP for sending files to the OA (staff was uncertain if this had already been utilized for the 2013 valuation).

## Data Processing for Benefit Calculations

With respect to the benefit calculation process - all members other than Tier III members have a 30-day notice requirement, and interested members call for a one hour appointment with one of eight available counselors. Packets are sent to potential retirees in advance of the meeting and contain double-checked information. Potential retirees leave the meeting knowing what their initial pension check amount ( $90 \%$ of their estimated final benefit) will be. Paper Annual Benefit Statements (ABS) are sent to all active members which help with general education as well as making members very aware of their benefit amounts. The statements were revised to include service data, which led to this quote from the meeting, "[this is the] best auditing tool we have." As a result of member feedback on erroneous service data in the ABS, service data has improved dramatically. The biggest transaction relates to beneficiary updates after the ABS. However, pre-COPS deferred vested members do not receive an ABS, and there is no way to verify this information. A particular POLICE staff member finalizes all calculations and forwards to the OA via courier for verification. Less than $8 \%$ of members elect a beneficiary option in part due to early ages at retirement but also because there is a perception that the System overcharges for options. From member initiation of retirement process to benefit finalization is normally a 2-3 month process. A training manual with business processes is available.

In order to avoid recalculation of the pension benefit, POLICE waits until contract settlement to perform the final pension calculation. The backlog currently stands at 4,500 (Second Engagement Update -- 6,000) pension calculations. The COPS system has increased available bandwidth (the amount of data that can be processed at one time) to address backlogs once contracts are ratified. Also, the delay in benefit-finalization due to expired contracts result in the "death gamble" benefit being operational for a much longer time than would be the case if contracts were settled sooner.

## Meeting With the Police Pension Fund (POLICE)

Second Engagement Update -- Captains and above have a tentative agreement. This represents less than $25 \%$ of the group. The recalculations will start once members receive their payments. There is also a new terminal leave buyout component that will add complications to the calculations.

The benefit computation follows this general outline:

- Tier 2 members give 30-day notice of retirement (Tier 3 members are not required to give 30 day notice);
- Member makes an appointment with a retirement counselor (walk-ins are available also);
- A retirement package is sent prior to the counseling session (or are provided at session if walking in);
- Counseling takes one to two and a half hours - member services reviews case folder for accuracy and documentation. Member leaves with an estimate of their initial pension check amount, usually $90 \%$ of the estimated final benefit; and
- POLICE computes estimate with estimated options and final without options. OA calculates all final options and IRC 415 limits (only $7 \%$ to $8 \%$ of members elect options).


## Security and Business Continuation

POLICE feel they are on the leading edge of security. All paper documents are imaged, legal documents are put on CD-ROM and are available on-line, and microfilm is converted to pdf. There are daily backup procedures and backup tapes are sent on a weekly basis for storage at an offsite location. There is a disaster recovery site on Staten Island (and a high speed line between the Manhattan and Staten Island offices) complete with a work area consisting of 50 workstations and this location will soon house the data center. POLICE have a 12-person IT staff that is converting the system from physical to 57 virtual servers concurrently running. Disaster recovery is tested twice each year. Penetration testing is periodically performed (not on a regular schedule). Access to network is via fingerprint (no passwords). Since 2007, backup tapes are encrypted and stored offsite at GRM. Older tapes are not encrypted and are stored onsite in a Houdini safe. Internet access is segregated from network access and VPN is not provided (except to a handful of IT employees).

During Hurricane Sandy, POLICE discovered an issue with its process: the backup servers required a manual boot up. However, no one was onsite and access to the backup servers was restricted due to the flooding. This resulted in POLICE pursuing conversion to virtual servers with the servers split between the primary location and the disaster recovery (offsite) location. The POLICE Disaster Recovery location is on Staten Island and has three sources of power supply.

## Meeting with the Police Pension Fund (POLICE)

## Second Engagement Update

This redesign is approximately 89\% completed. With the redesign, the data center will now be on Staten Island and POLICE will be the backup data center. The facility on Staten Island will be the disaster recovery site. It can hold the entire staff in three shifts along with three counseling sites. The Disaster Recovery redesign is expected to be completed by June 2015.

Summary Evaluation: POLICE interacts well with the OA, and should pursue FTP transmission of data, if this has not already been accomplished. POLICE technology and security procedures are quite sound. Data is backed up and backup tapes are stored offsite. POLICE is extensively audited, undergoing several audits: from the Comptroller, internally, the Office of the Actuary, and from the State of New York. POLICE should share information regarding its virtual servers/disaster recovery with the other Systems. POLICE should review NYCERS paperless process to see if there are enhancements from the NYCERS System that would benefit them. POLICE should review TRS security education program to see if there is benefit in adopting a similar program.

## Meeting with the Fire Pension Fund (FIRE)

## Data Processing for Valuation Files

FIRE receives data from PMS in ASCII format through SFTP and loads data into the Employee Payroll Information Systems ("EPIS"). Data integrity is checked before loading into the FDNY data warehouse database. Valuation data is handled by BTDS - a computer group that is part of the Fire Department. The OA requests salary information for FIRE active members from FISA. OA also receives from FIRE files of new members, withdrawals, member contributions and a list of vested terminated members. The OA validates the new member, withdrawal and member contribution files. The OA then uses these validated files to update the prior year's active valuation file and create a valuation file for the current year.

The OA obtains pensioner payroll information from PPMS. FIRE sends the OA a file of pensioners who terminated pension status during the year. The OA creates a Pensioner-Only/Beneficiary-Only file (PO/BO file) based on a listing of pensioners and beneficiaries who died during the year which is supplied by FIRE. The OA creates a New Pensioner file during the year as a by-product of its benefit calculation process. At valuation time, the OA validates the pensioner payroll, termination, $\mathrm{PO} / \mathrm{BO}$ and new pensioner files and uses them to update the prior year's pensioner file and creates a pensioner file for the current year. The OA then conducts a comprehensive validation of the pensioner file.

FIRE examines all of the valuation data using extensive edit procedures before sending it to the OA. Data processing is usually completed in September.

## Data Processing for Benefit Calculations

FIRE provides annual benefit statements to all employees via its secure Intranet, no longer in the form of a hard copy. Comprehensive information is provided, including the actual employee contribution balance, the ITHP balance, and other items. Pension estimates are also available and includes beneficiaries and Tier III Members. FIRE provides one individual counseling session at the retirement desk and also hosts monthly 5-6 hour seminars on retirement procedures/processes.

FIRE does all pension calculations other than QDRO and Option IV annuity which are calculated by the OA. The retirement process is initiated by the member who submits retirement application via chain of command - printing the required forms from the home page of the Intranet. If retirement date is the first to fifteenth of the month, they are given a partial payment at the end of that month (if sixteenth or later, partial payment at end of next month). At present, no pension is finalized until contracts are settled. Once contracts are settled, FIRE will calculate the final benefits and send each retiree their Option figures (about $8 \%$ elect options). Retirees respond within 60 days, and once received, FIRE sends the benefit calculation figures to the OA for certification via department messenger. Within two weeks, OA sends the certifications back. Similar to POLICE, the delay in benefit-finalization due to expired contracts result in the "death gamble" benefit being operational for a much longer time than would be the case if the contracts had been settled sooner.

## Meeting with the Fire Pension Fund (FIRE)

## Second Engagement Update

Fire Officers (approximately 25\% of the membership) have a tentative settlement. The first 10 months of the settlement period calls for a $0 \%$ increase, therefore FIRE has been able to start finalization process for members who retired in that period. However, they have to wait until the settlement is approved before completing the process. The Police Officers (members of POLICE) are under binding arbitration. Other FIRE members will likely settle after the Police Officer binding arbitration.

Current staff will work overtime to handle the recalculations. However, FIRE would like to increase staff for both pension and IT. Currently, FIRE is allocated two of the Fire Department IT staff. FIRE would like its own IT department (staff and equipment) and we concur that having its own IT department would be preferable.

## Security and Business Continuation

FIRE has a disaster recovery plan and backup procedures. However, tapes from the mainframe are stored in a FIRE office building one block away from the primary location. Hard copies are stored on site. FIRE's wish list includes a Disaster Recovery Site and a transition from paper physical files to electronic files.

Summary Evaluation: The recordkeeping and data collection procedures used by FIRE are generally sound and result in integrity of data provided to the OA that is generally good. FIRE follows a disaster recovery plan. However, there is a problem with the storage of backed up data that is stored at a location not sufficiently distant from the primary location. In addition, due to very stringent budget restrictions FIRE sometimes finds itself short on resources.

## APENDIX 2

SAMPLE EMPLOYEE RECORD ANALYSIS

## SAMPLE EMPLOYEE RECORD ANALYSIS

As part of the Administrative Review, we brought sample data from the valuation files provided by the OA. The data was intended to represent a sampling of each System. The goal was to compare the data actually used in the valuation with the data that each System had on file. Data elements reviewed included dates of birth, dates of hire, salary and/or pension amounts, member contribution balances and/or annuity amounts, etc. For each meeting, GRS brought sample data for $10-15$ members of the System (actives, retirees and terminated vested). At the end of each meeting, GRS worked with a designated representative of the System to review the sample data against data maintained (or accessible) by the System.

The review indicated that the data that was used in the June 30, 2010 actuarial valuation was appropriate for that purpose and was representative of data contained in each Systems' data system. We note the following three general issues:

- Some Systems did not seem to have a complete record of June 30, 2010 "valuation data" provided to the OA;
- During our visit on January 16, 2014, accessing data in the past (i.e., 6/30/2010) was particularly challenging for the POLICE. Much of the sample data for the POLICE was not able to be found on-site; and
- Data elements even within a particular member category (e.g., active) were often found within different databases/sources. Often times, the System representative needed to bring in other System data experts to find certain data elements (e.g., member contribution balances as of 6/30/2010).

In addition, we note the following System specific issues:
TRS

- Service amounts as of June 30, 2010 accessed by the TRS System representatives were in some cases higher than the service amounts in the GRS sample data. It was later determined that the System data reflected Chapter 126 service. The programming used by GRS to attempt to replicate TRS valuation results, adds the estimated amount of Chapter 126 service to the service provided in the OA's valuation data. Upon review of the calculated service for these individuals within the GRS valuation programs, we confirmed that there is agreement between the service accessed by TRS representatives and the service ultimately used in the TRS valuation by the OA; and
- For one of the retirees the data from the OA's valuation file indicated the percentage of benefit continued to the beneficiary was $25 \%$. The data files accessed by the TRS representative indicated it was $5 \%$. TRS has indicated that the member could have retired long ago prior to the implementation of UPS and the benefit might have been calculated manually and entered incorrectly since there is no payment option of $5 \%$.

New York City Retirement Systems
Administrative Review Report of Actuarial Data Gathering Process
October 2015

## SAMPLE EMPLOYEE RECORD ANALYSIS

## NYCERS

- For one active member the NYCERS data showed service in excess of the service in the sample data (28 years versus 19 years). The NYCERS' staff indicated this member had purchased prior service that was not reflected in the data sent to the OA.

Conclusion: Data used in the valuation is appropriate for valuation purposes and is a fair representation of actual member data. We recommend the following:

- Each of the Systems should put a mechanism in place that allows for easier data verification. Since this is a routine part of the process (both for the biennual Actuarial Audit performed through the Comptroller's Office and by each System's outside auditor), this process should be streamlined. With a streamlined process, verification could be performed at greater depths; and
- Historical information sent to the OA should be maintained until after completion of the Actuarial Audit.


## Second Engagement Update

Similar to the First Engagement process described above, we brought sample data from the June 30, 2012 valuation files provided by the OA which represented a sampling of each System. Again we compared the data actually used in the valuation with the data that each System had on file. Data elements reviewed included dates of birth, dates of hire, salary and/or pension amounts, member contribution balances and/or annuity amounts, etc. For each meeting, GRS brought sample data for 10-15 members of the System (actives, retirees and terminated vested) and worked with designated representatives of each System to review the sample data against data maintained (or accessible) by the System.

The review indicated that the data used in the June 30, 2012 actuarial valuation was appropriate for that purpose and represented data contained in each Systems' data system.

We noted the following three general issues in the First Engagement and provide updates (underlined) from the second engagement below:

- Some Systems did not seem to have a complete record of June 30, 2010 "valuation data" provided to the OA; $\rightarrow$ generally not an issue with respect to June 30, 2012 valuation data review, perhaps due to closer proximity of the valuation date to the audit. Some of the active information was hard to track precisely due to data systems being "real time", but basic information was verified.
- During our visit on January 16, 2014, accessing data in the past (i.e., 6/30/2010) was particularly challenging for the POLICE. Much of the sample data for the POLICE was not able to be found on site; $\rightarrow$ not an issue with respect to June 30, 2012 valuation data review.


## SAMPLE EMPLOYEE RECORD ANALYSIS

- Data elements even within a particular member category (e.g., active) were often found within different databases/sources. Often times, the System representative needed to bring in other System data experts to find certain data elements (e.g., member contribution balances as of 6/30/2010). $\rightarrow$ still relevant, but generally System representatives were able to quickly find information in other databases that they could access.


## System specific notes:

## TRS

- Chapter 126 service represented on the valuation file for one member was off by one year. The future valuation file will include the equivalent of 720 days of Chapter 126 service credit for this member because of transfer service recently credited.

For another member, the valuation file did not reflect the member contributions as represented in previous year file or subsequent years file. TRS was able to confirm that the information was provided to the OA in a separate file as a production issue.

## Second Engagement Update

Conclusion: Data used in the June 30, 2012 valuation is appropriate for valuation purposes and is a fair representation of actual member data. We continue to recommend the following:

- Each of the Systems should put a mechanism in place that allows for easier data verification. Since this is a routine part of the process (both for the bi-annual Actuarial Audit performed through the Comptroller's Office and by each System's outside auditor), this process should be streamlined. With a streamlined process, verification could be performed at greater depths; and
- Historical information sent to the OA should be maintained until after completion of the Actuarial Audit.


## Q1R $\begin{aligned} & \text { Gabriel Roeder Smith \& Company } \\ & \text { Consultants \& Actuaries }\end{aligned}$

NEW YORK CITY RETIREMENT SYSTEMS
ACTUARIAL AUDIT OF EMPLOYER CONTRIBUTIONS FOR FISCAL YEAR 2014
(JUNE 30, 2012 LAG VALUATION)
Prepared by:
Gabriel, Roeder, Smith \& Company
October 2015

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C. GRS Replications and Findings by System

## SECTION A

EXECUTIVE SUMMARY

## EXECUTIVE SUMMARY

## Background

Gabriel, Roeder, Smith \& Company (GRS) was retained by the Comptroller to serve as Independent Actuary under Section 96 of the New York City Charter and provide other services related to the review of the funding of the following five actuarial pension funds (collectively NYCRS or the Systems):

- New York City Employees' Retirement System (NYCERS)
- Teachers' Retirement System of the City of New York (TRS)
- Board of Education Retirement System of the City of New York (BERS)
- New York City Police Pension Fund (POLICE)
- New York Fire Department Pension Fund (FIRE)

GRS will conduct two consecutive biennial actuarial engagements, encompassing the following:

- Biennial Contribution Audits of the computed employer contributions for each System in NYCRS for fiscal years 2012 and 2014 (including an audit of actuarial accrued liabilities and actuarial valuation of assets);
- Biennial Experience Studies for the periods ending June 30, 2011 and June 30, 2013, for each System in NYCRS;
- Two Administrative Reviews of the data gathering and maintenance practices of the Office of the Actuary (OA) and each System in NYCRS (one review corresponding with each Contribution Audit); and
- Two Independent Actuarial Statements (one for each engagement); GRS, as the independent actuarial auditor, will submit a statement that will briefly describe the scope of the entire engagement, will review the entire engagement and comment on the financial condition and financing progress and policies of each System, and certify that the Systems are being funded on a sound actuarial, financial, and legal basis.

This report constitutes the deliverable with respect to the Actuarial Audit of the Employer Contributions for Fiscal Year 2014 and the underlying derivations of valuation assets and liabilities.

The purposes of this audit are to:

- verify that the employer contributions calculated by the OA are accurate, appropriate and reasonable;
- verify that the actuarial liabilities and actuarial values of assets have been computed using actuarial assumptions and methods that have been approved by each System's Board of Trustees and conform to applicable laws and generally accepted Actuarial Standards of Practice;
- verify that the actuarial software is operating accurately;
- review methods and assumptions for general reasonableness; and
- recommend changes that improve the annual valuation calculations.


## EXECUTIVE SUMMARY (CONTINUED)

The Actuarial Contribution Audit provides an independent verification of the computation of employer pension contributions - including the methodologies used therein and their conformity to law and generally accepted actuarial principles - for the fiscal years 2012 and 2014. The Experience Studies review and comment on the continued appropriateness of the actuarial assumptions used in the computations of employer contributions and identify areas where assumptions may be improved. The Administrative Review evaluates the actuarial data gathering process to ensure that the data collection methods produce sufficiently accurate data for valuation and Experience Study purposes. Thus the three components of the assignment provide assurance that:

- Assets and liabilities are calculated accurately, using appropriate actuarial assumptions and methods, and are based on sufficient and accurate census data; and
- Employer contribution amounts are computed in conformity with all applicable financial, actuarial and statutory requirements.


## Organization of this Report

This report is divided into the following sections:

Section A Executive Summary<br>Section B Discussion of Methods and Findings Related to all Systems<br>Section C GRS Replications and Findings by System

## Actuarial Audit Process

The actuarial audits begin with the collection of member data, plan benefit provisions and financial information. After gathering and understanding all the relevant data, GRS then performed replication valuations to independently calculate valuation assets, liabilities and employer contributions. Once GRS had developed the base valuations, we then reviewed calculations for over 150 individual test lives. The review of the test lives helped identify those areas of the GRS valuation model that differed from the OA's valuation model. In the first engagement the test life reviews resulted in the identification of recommended changes (such as programming inconsistencies or assumptions that had not been updated in accordance with the 2012 A\&M). During the second engagement, we used the test life review to determine if any of the recommendations from the first engagement had been implemented (or were still outstanding). As shown in the detail section for each System, many of the issues identified in test life review from the first engagement had not been implemented in the June 30, 2012 actuarial valuation and are included as recommendations in this engagement. For the second engagement GRS requested $300-400$ test life cases (less than $1 / 2 \%$ of the entire group) in July 2014. Most were actives from NYCERS which has more than 100 different benefit plans. The OA provided test cases to GRS weekly over the next 7 months. In January 2015 the OA asked if they could stop sending test cases and GRS acquiesced, since the remaining issues did not have a material effect on our ability to replicate the valuation results. Those items indicated as "outstanding status unconfirmed" are items for which we did not receive test cases in order to determine if the issue was resolved.

## EXECUTIVE SUMMARY (CONTINUED)

Once the GRS valuation model was completed, results were compared to the OA's and tested against pre-established tolerances. The comparisons of those tolerances are contained in the body of this report. The process can be summarized in the following steps:

1. Collect data:
a. Member data used by the OA
b. Summary of benefits valued by the OA
c. Financial data used by the OA
2. Review plan benefit documentation to independently determine the plan benefits to be valued, including:
a. Applicable laws
b. Plan documents and benefit summaries developed by the Systems and posted on their websites
c. Plan benefit summaries included in the Systems' CAFRs
3. Obtain the actuarial assumptions and methods used in the OA's valuation and independently confirm their applicability, validity and appropriateness
4. Perform independent valuations for each System using GRS' proprietary software and OA's data, assumptions and methods
5. Compare GRS' results with the OA's and identify and investigate areas of significant differences
6. Compare GRS' valuation of test cases with those of the OA's and identify and investigate areas of significant differences
7. Refine GRS' valuation model based on investigations of differences in results
8. Compare GRS valuation results to OA valuation results and test against tolerances
9. Recommend changes, as deemed appropriate by GRS

## Results

This was the second actuarial audit since the implementation of the 2012 A\&M (Actuarial Assumptions and Methods). One of the changes that was part of the 2012 A\&M was a change in the actuarial cost method from the Frozen Initial Liability (FIL) Actuarial Cost Method to the Entry Age (EA) Actuarial Cost Method. As a result of this change in actuarial cost methods, there are more components in the actuarial audit of liabilities to replicate (as was the case with the first actuarial audit). The components reviewed include:

- the Present Value of Future Expected Benefits (PVFB)
- the Actuarial Value of Assets (AVA)
- the Present Value of Future Normal Cost (PVFNC)
- the Actuarial Accrued Liability (AAL)
- the Unfunded Actuarial Accrued Liability (UAAL)
- the amortization charges
- the Total Employer Contribution


## ExEcutive Summary (CONTINUED)

The "PVFB" represents the present value of all future benefits (those that have accrued and those that are expected to accrue in the future) to be paid from the Systems to current active plan members. Under the FIL Actuarial Cost Method, the PVFB less the assets less the frozen unfunded liability (for which there is a payment schedule) is spread over the future working lifetime of the current active population to develop a normal cost. The normal cost is then added to the payment for the unfunded liability and the expenses to develop the employer contributions. Therefore, prior actuarial audits focused on the calculations of the PVFB and the employer contributions.

Under the Entry Age Actuarial Cost Method, each individual member’s PVFB at entry age is financed from entry age to exit from active service as a level percent of that member's expected pay (from entry age to exit from active service) to develop the Normal Costs. The Present Value of Future Normal Costs (PVFNC) on the valuation date is subtracted from the PVFB on the valuation date to determine the Actuarial Accrued Liability (AAL). The AAL can also be thought of as the present value of past normal costs (adjusted for survival and benefit payments). Therefore, under the EA Actuarial Cost Method, the PVFB again is the main result and the PVFNC and the AAL represent allocations of the PVFB between past and future costs. Different allocations between the PVFNC and the AAL may or may not result in different employer contributions, over the short term, depending on the relationship between the amortization periods for financing UAAL and the average career length of a new entrant. As a result, auditing tolerances are usually wider for the cost components other than the PVFB (cost components exclude the AVA). The following table shows a summary of the results of the actuarial audit relative to the PVFB and the employer contributions for FY 2014.

| Comparison of OA and GRS Valuation Results (\$ Millions) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| System | Category | OA <br> Results | GRS <br> Results | Percent Difference | Tolerance Limit | Pass/ <br> Fail |
| NYCERS | PVFB | \$ 82,953 | \$ 81,989 | 1.18\% | 2.00\% | Pass |
|  | Employer Contribution | \$ 3,114 | \$ 3,040 | 2.43\% | 5.00\% | Pass |
| TRS | PVFB | \$ 71,837 | \$ 71,133 | 0.99\% | 2.00\% | Pass |
|  | Employer Contribution | \$ 2,999 | \$ 2,895 | 3.59\% | 5.00\% | Pass |
| BERS | PVFB | \$ 5,028 | \$ 5,023 | 0.10\% | 2.00\% | Pass |
|  | Employer Contribution | \$ 215 | \$ 216 | -0.46\% | 5.00\% | Pass |
| POLICE | PVFB | \$ 53,626 | \$ 53,363 | 0.49\% | 2.00\% | Pass |
|  | Employer Contribution | \$ 2,321 | \$ 2,262 | 2.61\% | 5.00\% | Pass |
| FIRE | PVFB | \$ 20,966 | \$ 20,867 | 0.47\% | 2.00\% | Pass |
|  | Employer Contribution | \$ 970 | \$ 963 | 0.73\% | 5.00\% | Pass |
| Total | PVFB | \$ 234,410 | \$ 232,375 | 0.88\% |  |  |
|  | Employer Contribution | \$ 9,619 | \$ 9,376 | 2.59\% |  |  |

## EXECUTIVE SUMMARY (CONTINUED)

Under the Entry Age Actuarial Cost Method, the PVFB is allocated between past and future service Actuarial Accrued Liability (AAL) and Present Value of Future Normal Cost (PVFNC). GRS had difficulty replicating the OA's allocation between AAL and PVFNC for NYCERS, TRS and BERS during the first engagement. During the second engagement, it was determined (by looking closer at test case calculations and later confirmed by the OA) that the OA was leveling the member contributions over each member's entire career when determining the employer financed portion of the normal cost. This mainly affects the computation of the liabilities and normal costs of the civilian plans due to the shorter duration of member contributions. While this is an acceptable approach, we found no documentation describing this approach in the materials provided to us by the OA (or in the System CAFRs). We adjusted for this variation in the second engagement and our resulting computations of normal costs and accrued liabilities became much closer to the computations of the OA.

Based on these results, GRS has confirmed that the OA's calculations of the employer contributions for all Systems were reasonable and appropriate.

## Summary of Recommendations/Findings

Applicable to all Systems:

1. Produce formal actuarial reports for all Systems
2. Describe the leveling of member contributions (over each member's career) in the determination of the employer normal cost in any description of the actuarial cost method
3. Consider the use of a corridor around the market value in the development of the actuarial value of assets
4. Consider changes to the One Year Lag Methodology (OYLM)
5. Review the assumed benefit commencement date for deferred vested members for consistency between the valuation of the vested decrement for current active members (who are assumed to become deferred vested in the future) and the valuation of the current deferred vested members

## EXECUTIVE SUMMARY (CONTINUED)

## Summary of Recommendations/Findings (continued)

## NYCERS:

6. Review administrative expenses in the development of the Actuarial Value of Assets (AVA)
7. Review programming for treatment of active members that are over 75 on the valuation date
8. Review calculations of liabilities for the vesting decrement for active members (liabilities for current active members assumed to quit with deferred benefits in the future)
9. Review the use of "default plan" provisions to value certain NYCERS members
10. Update the mortality for Transit beneficiaries to the tables adopted with the 2012 A\&M (outstanding status unconfirmed)

TRS:
11. Review method of accounting for the TDA Fixed Funds in the development of the AVA
12. Review rounding of service for active members
13. Review programming of probabilities of termination on and after 20 years of service - rates shown in test life cases appear to indicate that these probabilities were rounded to the nearest 1\%

## BERS:

14. Review the amount of the assumed COLA in the first year after the valuation for members with $\$ 0$ reported in the maximum allowance field
15. Review the allocation of the liabilities to the vested decrement for Tier I and Tier II
16. Continue to work with BERS to improve the reporting of valuation data related to part-time members

## POLICE:

17. Review the assumed age of commencement for current deferred vested members
18. Review the development of the RASF (required member contributions) used in the entry age pass and reprogram accordingly

FIRE:
19. Review the assumed age of commencement for current deferred vested members
20. Value benefits (and liabilities) associated with "other service"
21. Review modeling of Auto COLA for certain beneficiaries

## ExECUTIVE SUMMARY (CONCLUDED)

We would like to thank the OA for their cooperation.
James D. Anderson and Heidi G. Barry are Members of the American Academy of Actuaries (M.A.A.A) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully submitted,


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## Heidi 2 zany

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October 23, 2015
Date

## SECTION B

DISCUSSION OF METHODS AND FINDINGS
RELATED TO ALL SYSTEMS

## DISCUSSION OF METHODS

## General Comments

Each contribution audit begins with a replication of the valuation. However, a complete replication is not the end goal. The replication is performed to gain an understanding of the methods used by the OA and to verify that the independent auditing actuary can replicate results within reasonable tolerances based on the methods and assumptions described by the OA. Once the replication has been achieved, the auditing actuary must then evaluate the methods and assumptions to determine if the auditing actuary agrees with their use and/or recommends any changes.

## Tolerances

While every valuation system will have some differences, these differences should generally be minor, especially in the aggregate. Replication of results within $2 \%-5 \%$ is generally viewed as a successful replication. However, different aspects of the replication may be farther away than others due to differences in valuation programs. For purposes of this audit, GRS has determined that a successful replication will occur if one of two tests is passed. The first test is an individual test. Using retirees and beneficiaries ( $\mathrm{R} \& B$ 's) as an example: this test will be passed if the difference between the OA's computation of Present Value of Future Benefits (PVFB) for R\&B's and the GRS' computation of the PVFB for R\&B's is within a specified tolerance of the OA computation of PVFB for R\&B's. The second test is an aggregate test. This test will be passed if the difference between the OA's computation of PVFB for R\&B's and the GRS' computation of PVFB for R\&B's is within a specified tolerance of the total PVFB for the entire System. The chart below illustrates the tolerances for this engagement:

| Category | Individual <br> Tolerance | Aggregate Tolerance |
| :--- | :---: | :---: |
| Present Value of Benefits by Category | $2.0 \%$ | $0.5 \%$ of Total Present Value of Benefits |
| Accrued Liability by Category | $5.0 \%$ | $5.0 \%$ of Total Accrued Liability |
| Normal Cost | $5.0 \%$ | $\mathrm{n} / \mathrm{a}$ |
| Computed Contribution | $5.0 \%$ | $5.0 \%$ of Total Contribution |

It is not uncommon for the differences in actuarial accrued liabilities and normal costs to be in opposite directions (the auditing actuary's accrued liabilities are greater, but the normal costs are lower or vice-versa). This can happen due to minor differences in the way valuation systems allocate the present value of benefits between the past and the future. Because of this, the tolerance range on accrued liabilities is larger than on the present value of benefits. Such differences will frequently be offsetting, resulting in a computed contribution that differs by less than $5 \%$.

## Testing of Individual Member Calculations

As part of the process, the auditing actuary will also look at detailed calculations for specific individuals included in the valuations (known as test lives). There are no specific tolerances used by GRS in the comparison of test lives. Small differences in the rounding of ages or the treatment of
service can create large differences in test life results that could be offsetting when looking at aggregate results for the System (or even total results for all the test lives of the System). The test lives are useful for verifying that benefits are generally computed in the same manner and that assumptions are applied in the same manner. In general, when we identified substantial differences in test life results we attempted to spot differences in the intricate details of the valuation calculations. In the first engagement, these differences led to the identification of minor differences between what the OA identified as their valuation assumptions and what was used in the valuations in certain cases, such as retiree mortality tables being used to value beneficiaries in BERS and certain NYCERS groups and rounded probabilities of withdrawal used in the TRS valuation. In this (the second) engagement, the test lives were used to verify which of the issues identified in the first engagement were still outstanding and to confirm that no new issues arose.

## Actuarial Value of Assets Method

## Method Description

The actuarial value of asset method used in the valuations for all of the Systems is as follows:
Assumed investment return (currently 7\%) is recognized immediately. Recognition of the difference between the assumed investment return and the actual investment return (on a market value basis) is phased into the actuarial value of assets. The schedule of recognition is $15 \%$ in the first year following the investment gain or loss, followed by recognition of $15 \%, 15 \%, 15 \%, 20 \%$ and $20 \%$ in the following five years. There is no corridor around the market value of assets within which the actuarial value must fall.

As part of the 2012 A\&M, the actuarial value of assets was reset to the market value. However, the method was not changed and will continue to be used in future valuations, after the restart date. Due to the timing of the completion of the silver books and the valuations, the investment return results for FY 2011 were already known. The Actuary decided to reset the actuarial value of assets to the market value as of June 30, 2011.

## Audit Comments

Most public sector plans use an asset smoothing period that ranges between 3 and 5 years. Some public sector pension plans use shorter periods, some plans use longer periods and a few plans use market values with no smoothing. Although the OA uses a longer period than is common in the public sector, we believe the method complies with the Actuarial Standard of Practice (ASOP) No. 44 , which discusses the selection and use of asset valuation methods for pension valuations.

Section 3.3 of ASOP 44 states, in part:
"3.3 Selecting Methods Other Than Market Value - If the considerations in section 3.2 have led the actuary to conclude that an asset valuation method other than market value may be appropriate, the actuary should select an asset valuation method that is designed to produce actuarial values of assets that bear a reasonable relationship to the corresponding market values. The qualities of such an asset valuation method include the following:
a. The asset valuation method is likely to produce actuarial values of assets that are sometimes greater than and sometimes less than the corresponding market values.
b. The asset valuation method is likely to produce actuarial values of assets that, in the actuary's professional judgment, satisfy both of the following:

1. The asset values fall within a reasonable range around the corresponding market values. For example, there might be a corridor centered at market value, outside of which the actuarial value of assets may not fall, in order to assure that the difference from market value is not greater than the actuary deems reasonable.
2. Any differences between the actuarial value of assets and the market value are recognized within a reasonable period of time. For example, the actuary might use a method where the actuarial value of assets converges toward market value at a pace that the actuary deems reasonable, if the investment return assumption is realized in future periods.

In lieu of satisfying both (1) and (2) above, an asset valuation method could satisfy section 3.3(b) if, in the actuary's professional judgment, the asset valuation method either (i) produces values within a sufficiently narrow range around market value or (ii) recognizes differences from market value in a sufficiently short period."

There are two common rationales for using an actuarial value of asset method to smooth market value fluctuations. One is that the market is volatile and that investment gains and losses should have their own smoothing where the smoothing period reflects the anticipated length of a market cycle. Under this rationale, many actuaries would argue that adding a corridor to the actuarial value of asset method will actually disrupt the smoothing because additional gains occurring after hitting the bottom of the corridor (or losses occurring after hitting the top of the corridor) are recognized immediately. Therefore, in a protracted downturn or a protracted upturn, the smoothing effect of the actuarial value of asset method could be temporarily lost.

The other rationale for using an actuarial value of asset method is a little more complex. Under some actuarial cost methods that develop an accrued liability, the accrued liability is essentially the theoretical value of the desired assets, given everything known on the valuation date and everything assumed after the valuation date. The value of the assets provides an actual measure. The Unfunded Actuarial Accrued Liability (UAAL) is then the difference between desired assets and actual assets. However, in order to make this determination you need to be able to assign a liquid value to your assets. In a portfolio with equities, this is done by multiplying the shares held by the value of those shares on the close of the market on the measurement date. Given that this date is in the past (relative to when the valuation is being performed), the fact that the shares were not sold, and that value of the shares likely changed at the very next market open, this method (known as the market value) is nothing more than a theoretical value. In addition, due to the large equity portfolios held by each of the Systems, it would not actually be physically possible to have liquidated the equity portfolios for
the closing values of the market, even if desired. Such liquidation would not only have taken a significant amount of time (which means that not all shares would have necessarily sold for the same price) but could actually influence the market pricing. As such, using a market value based on the closing market prices once every year is not only theoretical, but introduces fluctuations that many would consider to be "random noise." The actuarial value of assets therefore employs a smoothing technique in an attempt to smooth out the "random noise" while ascertaining the value of "where the plan is at, currently." Since no one can determine with $100 \%$ certainty what portion of the market value is random noise (even in hindsight), actuaries will use slightly different smoothing methods to fit the specific needs of the plan. Under this rationale, a true market correction (whether up or down) should be recognized immediately because it represents "where you are" on the measurement date. However, most large market fluctuations include both true market corrections and temporary "noise". Again, distinguishing between the two cannot be done with certainty (even in hindsight). Therefore, many actuaries employ a secondary process in the actuarial value of asset method to make that distinction. This secondary process is known as a corridor around the market value. If the corridor is hit, then all gains or losses beyond that corridor are treated like a market correction and recognized immediately in the valuation.

The issue of using corridors is gaining more and more attention in the actuarial field. In 2014, two publications were circulated related to funding public sector plans:

1) The Society of Actuaries (SOA) "Report of the Blue Ribbon Panel on Public Pension Plan Funding"
2) A white paper developed by the Conference of Consulting Actuaries Public Plans Community (CCA PPC): "Actuarial Funding Policies and Practices for Public Pension Plans"

The recommendation from the Blue Ribbon Panel was to use an asset smoothing method over a period of less than or equal to five years. They neither recommended for nor against the use of a market corridor. The Panel's "Standardized Contribution Benchmark" does not use a corridor. However, in one footnote the Panel makes the statement:
"While a corridor is typically recommended, the Panel does not use one in the standardized contribution because it is assuming no restart (resetting actuarial to market value of assets) and NO changes in amortization schedules for extraordinary gains or losses. This provides the most smoothness of assets."

The CCA PPC was more direct, indicating that using a smoothing period with no corridor was a "nonrecommended practice".

In light of:

1) ASOP 44
2) the CCA PPC white paper
3) the SOA Blue Ribbon Commission
4) the fact that the smoothing period exceeds five years and the length used by most public retirement systems
5) the second rationale listed above for using an actuarial value of asset method

We recommend the use of a corridor around the market value to ensure that the actuarial value of assets "maintains a sufficiently narrow range around the market value" of assets. We recommend a corridor in the range of $25 \%$ to $30 \%$. This range is within common practice. We note that the use of a corridor has been considered and rejected by the Actuary in the past.

We were able to reproduce the mathematical calculations used to determine the June 30, 2012 actuarial value of assets with the exception of the handling of expenses in the lag period for NYCERS. The difference was not material.

During the first engagement the OA pointed out that an issue arose with the TRS assets (and BERS assets, to a lesser extent) beginning with the June 30, 2011 valuation. The issue relates to the fact that the TDA (Tax Deferred Annuity) fixed funds and the QPP (Qualified Pension Plan) funds are comingled and that TDA gets a fixed interest allocation regardless of fund performance. This has the effect of amplifying (or leveraging) the gains and losses on the remainder of the assets. Consider the following three examples:

| Example 1 | Total Fund Rate of Return: |  | 7\% |
| :---: | :---: | :---: | :---: |
|  | QPP | TDA | Total |
| Beginning of Year Asset Value | \$1,000.00 | \$500.00 | \$1,500.00 |
| Expenditures | 300.00 | 10.00 | 310.00 |
| Contributions | 200.00 | 5.00 | 205.00 |
| Investment Return | 66.50 | 34.83 | 101.33 |
| End of Year Asset Value | 966.50 | 529.83 | 1,496.33 |
| Rate of Return | 7.00\% | 7.00\% | 7.00\% |
| Example 2 | Total Fund Rate of Return: |  | 9\% |
|  | QPP | TDA | Total |
| Beginning of Year Asset Value | \$1,000.00 | \$500.00 | \$1,500.00 |
| Expenditures | 300.00 | 10.00 | 310.00 |
| Contributions | 200.00 | 5.00 | 205.00 |
| Investment Return | 95.45 | 34.83 | 130.28 |
| End of Year Asset Value | 995.45 | 529.83 | 1,525.28 |
| Rate of Return | 10.05\% | 7.00\% | 9.00\% |


| Example 3 | Total Fund Rate of Return: |  | $5 \%$ |  |
| :--- | ---: | ---: | ---: | ---: |
|  | QPP |  |  |  |
|  | TDA |  | Total |  |
| Beginning of Year Asset Value | $\$ 1,000.00$ | $\$ 500.00$ | $\$ 1,500.00$ |  |
| Expenditures | 300.00 | 10.00 | 310.00 |  |
| Contributions | 200.00 | 5.00 | 205.00 |  |
| Investment Return | 37.55 | 34.83 | 72.38 |  |
| End of Year Asset Value | 937.55 | 529.83 | $1,467.38$ |  |
|  |  |  |  |  |
| Rate of Return | $3.95 \%$ | $7.00 \%$ | $5.00 \%$ |  |

In example 1, each of the component funds earns the same investment rate of return as the total fund because the total rate of return was exactly $7 \%$. In example 2 , there is an investment gain because the total fund earns $9 \%$. However, that gain is amplified for the QPP because the TDA gets exactly $7 \%$. In example 3 there is an investment loss because the total fund earns $5 \%$. However, that loss is amplified for the QPP because the TDA gets exactly 7\%.

The OA asked us if we had ideas on how to mitigate the leveraging of asset gains and losses on the QPP. Below are two possibilities:

1) Run a Monte Carlo simulation on the asset returns to measure the relationship between the rate of return on the total portfolio compared to the rate of return on the QPP, given the fixed rate of return on the TDA. Modify the valuation assumption, if indicated.
2) Establish a contingency reserve during the years in which the total fund return equals or exceeds the fixed TDA rate of return (currently 7\%). The amount of the reserve would equal all or a portion of the gain that arises in the QPP in those years attributable to the leveraging from the fixed rate of return on the TDA. Then in years when the total fund earns less than the rate credited to the TDA, portions of the contingency reserve can be released to mitigate the effect of the downward leveraging.

The OA also indicated that this issue created another issue with the development of the Actuarial Value of Assets. The issue, as we understand it, is that the transfer of investment income from the QPP to the TDA is treated like a benefit payment coming out of the QPP rather than investment income and therefore does not get smoothed in the same manner as investment income when it comes into the fund. The OA has indicated its suspicion that this treatment results in a bias in the Actuarial Value of Assets to be less than the Market Value of Assets, even when all assumptions are met. We recommend netting the TDA transfer from the investment income prior to smoothing the income, so that the TDA transfer is treated in the same manner as all other investment income.

## Actuarial Cost Method

The Fiscal Year 2014 employer contributions are determined from the June 30, 2012 actuarial valuation. Thus, there is a 1 -year lag between the valuation date and the period for which employer contributions are made. The June 30, 2012 valuations use the Entry Age Actuarial Cost Method (EAACM). This method was first employed for use in the June 30, 2010 NYCRS' actuarial valuations as part of the 2012 A\&M. This is the most common actuarial cost method in use by public
employee retirement systems. In addition, the EAACM will now be required for accounting purposes under GASB Statements No. 67 and No. 68. We agree that this is an appropriate method for determining employer contributions for funding.

Initial unfunded actuarial accrued liabilities (determined as of June 30, 2010) are amortized as a level percent of pay over a 22-year closed period. Gains and losses occurring after the June 30, 2010 valuation are amortized as level dollar amounts over a 15 -year closed period. These amortization periods are well within the common range of practice and we find them appropriate. The use of level percent amortization is well within the range of common practice. The use of level dollar amortization is well within the range of common practice. It is not within common practice to use level percent amortizations for certain components and level dollar amortizations for other components. While the use of either of these types of amortizations is acceptable, using both adds an unnecessary complication to an already complicated valuation process. We recommend the Actuary choose a single amortization method and use that method for all the types of UAAL.

## One-Year-Lag-Methodology (OYLM)

The One-Year-Lag-Methodology (OYLM) used in the valuation process (first used in the June 30, 2004 valuation to determine the FY 2006 contributions when valuations were performed using the Frozen Initial Liability actuarial cost method) reflects the fact that the employer contributions determined in a specific valuation will be contributed in the fiscal year that starts one year after the valuation date. Essentially, under the OYLM, the employer's cost of each new member's projected benefit is financed over a period starting with the second year of employment (entry age plus one) and ending on the expected year of retirement (retirement age). Currently, the OA starts the calculations using the individual level entry age actuarial cost method, which finances each member's projected benefit over the period from entry age to retirement age. However, the OA then modifies the entry age results in aggregate for the group, by financing the total future employer normal cost for the group over the future salaries of the group, starting one year after the valuation. Once the OA has made this adjustment, the normal cost is no longer level for each individual (based the OA's implementation). It may still be level for the group if the population stays relatively stable from year to year.

The OA verbally provided the following example to illustrate the OYLM under the EAACM: Consider a member with a 20 year career who was entitled to a lump sum of $\$ 19$ at retirement. For simplicity, assume the member stays in employment for the entire 20 years and retires upon his $20^{\text {th }}$ anniversary of employment. Also for simplicity, assume no mortality, no interest and no expenses. Then under the EAACM, the normal cost would be $\$ 0.95$ for each of the 20 years of employment. This would accumulate to $\$ 19$ ( $\$ 0.95 \times 20$ years $=\$ 19$ ) at the end of the 20 years of employment. Under the OYLM with EAACM, the normal cost would be $\$ 0$ for the first year of employment and $\$ 1$ for each of the following 19 years. This would also accumulate to $\$ 19$.

While we understand and agree with this example, we do not agree that this example is representative of the implementation of the OYLM that the OA has employed. A general description of the OA's implementation of the OYLM under the EAACM follows:

- Actuarial results for Present Value of Future Benefits (PVFB), Actuarial Accrued Liability (AAL), Present Value of Future Normal Cost (PVFNC), and Present Value of Future Salary (PVFS) are first determined as of the valuation date under the individual EAACM and aggregated for the group.
- Total PVFS is then projected forward one year by accounting for the salaries expected to be paid during the first year following the valuation date.
- An Employer Normal Cost percentage is calculated by dividing the unadjusted Employer PVFNC by the projected PVFS.
o This Employer Normal Cost percentage is then applied to payroll projected to the year starting one year after the valuation date.
- The unfunded liability on the valuation date is adjusted by Employer Normal Cost contributions that are expected to be made during the lag year (year starting on the valuation date).
- Administrative expenses paid during the year ending on the valuation date are funded by adding the amount of the expenses with two years of interest at $7 \%$ to the required contribution for the year starting one year after the valuation date.

The example on the following pages (Charts 1, 2 and 3 ) illustrate the EAACM, the EAACM with the theoretical (intended) OYLM and the EAACM with the OA implemented OYLM. They are based on the example verbally provided by the OA and described above.

The abbreviation key for the charts is:

PVFS = Present Value of Future Salary<br>PVB = Present Value of Future Benefits<br>EA = Entry Age<br>PVFNC = Present Value of Future Normal Cost<br>EANC = Entry Age Normal Cost<br>AAL = Actuarial Accrued Liability<br>UAAL = Unfunded AAL<br>Val = Valuation

## Chart 1

Illustration of EAACM with No Lag

| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Val Date | Service <br> on Val <br> Date | Pay <br> During Upcoming <br> Year | PVFS at <br> Val Date | PVB at <br> Val Date | PVB at EA | NC \% | PVFNC <br> at Val <br> Date | AAL at <br> Val Date | Assets at Val Date | UAAL | Contribution During Year (15 year amort of UAAL) | Assets 1 year after Va Date |
| 2010 | 0 | 10.00 | 200.00 | 19.00 | 19.00 | 9.50\% | 19.00 | - | - | - | 0.95 | 0.95 |
| 2011 | 1 | 10.00 | 190.00 | 19.00 | 19.00 | 9.50\% | 18.05 | 0.95 | 0.95 | - | 0.95 | 1.90 |
| 2012 | 2 | 10.00 | 180.00 | 19.00 | 19.00 | 9.50\% | 17.10 | 1.90 | 1.90 | - | 0.95 | 2.85 |
| 2013 | 3 | 10.00 | 170.00 | 19.00 | 19.00 | 9.50\% | 16.15 | 2.85 | 2.85 | - | 0.95 | 3.80 |
| 2014 | 4 | 10.00 | 160.00 | 19.00 | 19.00 | 9.50\% | 15.20 | 3.80 | 3.80 | - | 0.95 | 4.75 |
| 2015 | 5 | 10.00 | 150.00 | 19.00 | 19.00 | 9.50\% | 14.25 | 4.75 | 4.75 | - | 0.95 | 5.70 |
| 2016 | 6 | 10.00 | 140.00 | 19.00 | 19.00 | 9.50\% | 13.30 | 5.70 | 5.70 | - | 0.95 | 6.65 |
| 2017 | 7 | 10.00 | 130.00 | 19.00 | 19.00 | 9.50\% | 12.35 | 6.65 | 6.65 | - | 0.95 | 7.60 |
| 2018 | 8 | 10.00 | 120.00 | 19.00 | 19.00 | 9.50\% | 11.40 | 7.60 | 7.60 | - | 0.95 | 8.55 |
| 2019 | 9 | 10.00 | 110.00 | 19.00 | 19.00 | 9.50\% | 10.45 | 8.55 | 8.55 | - | 0.95 | 9.50 |
| 2020 | 10 | 10.00 | 100.00 | 19.00 | 19.00 | 9.50\% | 9.50 | 9.50 | 9.50 | - | 0.95 | 10.45 |
| 2021 | 11 | 10.00 | 90.00 | 19.00 | 19.00 | 9.50\% | 8.55 | 10.45 | 10.45 | - | 0.95 | 11.40 |
| 2022 | 12 | 10.00 | 80.00 | 19.00 | 19.00 | 9.50\% | 7.60 | 11.40 | 11.40 | - | 0.95 | 12.35 |
| 2023 | 13 | 10.00 | 70.00 | 19.00 | 19.00 | 9.50\% | 6.65 | 12.35 | 12.35 | - | 0.95 | 13.30 |
| 2024 | 14 | 10.00 | 60.00 | 19.00 | 19.00 | 9.50\% | 5.70 | 13.30 | 13.30 | - | 0.95 | 14.25 |
| 2025 | 15 | 10.00 | 50.00 | 19.00 | 19.00 | 9.50\% | 4.75 | 14.25 | 14.25 | - | 0.95 | 15.20 |
| 2026 | 16 | 10.00 | 40.00 | 19.00 | 19.00 | 9.50\% | 3.80 | 15.20 | 15.20 | - | 0.95 | 16.15 |
| 2027 | 17 | 10.00 | 30.00 | 19.00 | 19.00 | 9.50\% | 2.85 | 16.15 | 16.15 | - | 0.95 | 17.10 |
| 2028 | 18 | 10.00 | 20.00 | 19.00 | 19.00 | 9.50\% | 1.90 | 17.10 | 17.10 | - | 0.95 | 18.05 |
| 2029 | 19 | 10.00 | 10.00 | 19.00 | 19.00 | 9.50\% | 0.95 | 18.05 | 18.05 | - | 0.95 | 19.00 |
| 2030 | 20 | - | - | 19.00 | 19.00 |  |  | 19.00 | 19.00 |  |  |  |

Chart 2
Illustration of EAACM with Theoretical OYLM Implementation

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline (1) \& \begin{tabular}{l}
(2) \\
Service on Val Date
\end{tabular} \& \begin{tabular}{l}
(3) \\
Pay During Upcoming Year
\end{tabular} \& \begin{tabular}{l}
(4) \\
PVFS at \\
Val Date
\end{tabular} \& \begin{tabular}{l}
(5) \\
PVB at \\
Val Date
\end{tabular} \& \begin{tabular}{l}
(6) \\
PVB at EA
\end{tabular} \& (7)

NC\% \& \begin{tabular}{l}
(8) <br>
PVFNC at Val Date

 \& 

(9) <br>
AAL at Val Date

 \& 

(10) <br>
Assets at Val <br>
Date
\end{tabular} \& (11)

UAAL \& \begin{tabular}{l}
(12) <br>
During Year (15 year amort of UAAL)

 \& 

(13) <br>
Assets 1 <br>
year after Val <br>
Date
\end{tabular} <br>

\hline 2010 \& 0 \& 10.00 \& 200.00 \& 19.00 \& 19.00 \& 10.00\% \& 19.00 \& - \& - \& - \& - \& - <br>
\hline 2011 \& 1 \& 10.00 \& 190.00 \& 19.00 \& 19.00 \& 10.00\% \& 19.00 \& - \& - \& - \& 1.00 \& 1.00 <br>
\hline 2012 \& 2 \& 10.00 \& 180.00 \& 19.00 \& 19.00 \& 10.00\% \& 18.00 \& 1.00 \& 1.00 \& - \& 1.00 \& 2.00 <br>
\hline 2013 \& 3 \& 10.00 \& 170.00 \& 19.00 \& 19.00 \& 10.00\% \& 17.00 \& 2.00 \& 2.00 \& - \& 1.00 \& 3.00 <br>
\hline 2014 \& 4 \& 10.00 \& 160.00 \& 19.00 \& 19.00 \& 10.00\% \& 16.00 \& 3.00 \& 3.00 \& - \& 1.00 \& 4.00 <br>
\hline 2015 \& 5 \& 10.00 \& 150.00 \& 19.00 \& 19.00 \& 10.00\% \& 15.00 \& 4.00 \& 4.00 \& - \& 1.00 \& 5.00 <br>
\hline 2016 \& 6 \& 10.00 \& 140.00 \& 19.00 \& 19.00 \& 10.00\% \& 14.00 \& 5.00 \& 5.00 \& - \& 1.00 \& 6.00 <br>
\hline 2017 \& 7 \& 10.00 \& 130.00 \& 19.00 \& 19.00 \& 10.00\% \& 13.00 \& 6.00 \& 6.00 \& - \& 1.00 \& 7.00 <br>
\hline 2018 \& 8 \& 10.00 \& 120.00 \& 19.00 \& 19.00 \& 10.00\% \& 12.00 \& 7.00 \& 7.00 \& - \& 1.00 \& 8.00 <br>
\hline 2019 \& 9 \& 10.00 \& 110.00 \& 19.00 \& 19.00 \& 10.00\% \& 11.00 \& 8.00 \& 8.00 \& - \& 1.00 \& 9.00 <br>
\hline 2020 \& 10 \& 10.00 \& 100.00 \& 19.00 \& 19.00 \& 10.00\% \& 10.00 \& 9.00 \& 9.00 \& - \& 1.00 \& 10.00 <br>
\hline 2021 \& 11 \& 10.00 \& 90.00 \& 19.00 \& 19.00 \& 10.00\% \& 9.00 \& 10.00 \& 10.00 \& - \& 1.00 \& 11.00 <br>
\hline 2022 \& 12 \& 10.00 \& 80.00 \& 19.00 \& 19.00 \& 10.00\% \& 8.00 \& 11.00 \& 11.00 \& - \& 1.00 \& 12.00 <br>
\hline 2023 \& 13 \& 10.00 \& 70.00 \& 19.00 \& 19.00 \& 10.00\% \& 7.00 \& 12.00 \& 12.00 \& - \& 1.00 \& 13.00 <br>
\hline 2024 \& 14 \& 10.00 \& 60.00 \& 19.00 \& 19.00 \& 10.00\% \& 6.00 \& 13.00 \& 13.00 \& - \& 1.00 \& 14.00 <br>
\hline 2025 \& 15 \& 10.00 \& 50.00 \& 19.00 \& 19.00 \& 10.00\% \& 5.00 \& 14.00 \& 14.00 \& - \& 1.00 \& 15.00 <br>
\hline 2026 \& 16 \& 10.00 \& 40.00 \& 19.00 \& 19.00 \& 10.00\% \& 4.00 \& 15.00 \& 15.00 \& - \& 1.00 \& 16.00 <br>
\hline 2027 \& 17 \& 10.00 \& 30.00 \& 19.00 \& 19.00 \& 10.00\% \& 3.00 \& 16.00 \& 16.00 \& - \& 1.00 \& 17.00 <br>
\hline 2028 \& 18 \& 10.00 \& 20.00 \& 19.00 \& 19.00 \& 10.00\% \& 2.00 \& 17.00 \& 17.00 \& - \& 1.00 \& 18.00 <br>
\hline 2029 \& 19 \& 10.00 \& 10.00 \& 19.00 \& 19.00 \& 10.00\% \& 1.00 \& 18.00 \& 18.00 \& - \& 1.00 \& 19.00 <br>
\hline 2030 \& 20 \& - \& - \& 19.00 \& 19.00 \& \& \& 19.00 \& 19.00 \& \& \& <br>
\hline
\end{tabular}

= calculated, but not used

## Chart 3

Illustration of EAACM with OA Implementation of OYLM

| (1) ${ }^{\text {(1) }}$ | (2) <br> Service on Val <br> Date | (3) <br> Pay During Upcoming Year | (4) <br> PVFS at <br> Val Date | (5) <br> PVB at <br> Val Date | (6) <br> PVB at <br> EA | (7) <br> NC\% -before lag | (8) <br> PVFNC at Val Date | (9) <br> AAL at Val Date | (10) <br> NC \% -after lag | (11) <br> Assets at Val Date | (12) <br> NC Dollars | (13) <br> Projected <br> Assets with <br> Accrued NC | (14) <br> Projected <br> UAAL | (15) <br> 15 year amort | (16) <br> Assets <br> Year <br> End |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2010 | 0 | 10.00 | 200.00 | 19.00 | 19.00 | 9.50\% | 19.00 | - | 10.00\% | - |  | - |  |  |  |
| 2011 | 1 | 10.00 | 190.00 | 19.00 | 19.00 | 9.50\% | 18.05 | 0.95 | 10.03\% | - | 1.00 | 1.00 | (0.05) | (0.00) | 1.00 |
| 2012 | 2 | 10.00 | 180.00 | 19.00 | 19.00 | 9.50\% | 17.10 | 1.90 | 10.06\% | 1.00 | 1.00 | 2.00 | (0.10) | (0.01) | 1.99 |
| 2013 | 3 | 10.00 | 170.00 | 19.00 | 19.00 | 9.50\% | 16.15 | 2.85 | 10.09\% | 1.99 | 1.01 | 3.00 | (0.15) | (0.01) | 2.99 |
| 2014 | 4 | 10.00 | 160.00 | 19.00 | 19.00 | 9.50\% | 15.20 | 3.80 | 10.13\% | 2.99 | 1.01 | 4.00 | (0.20) | (0.01) | 3.98 |
| 2015 | 5 | 10.00 | 150.00 | 19.00 | 19.00 | 9.50\% | 14.25 | 4.75 | 10.18\% | 3.98 | 1.01 | 5.00 | (0.25) | (0.02) | 4.98 |
| 2016 | 6 | 10.00 | 140.00 | 19.00 | 19.00 | 9.50\% | 13.30 | 5.70 | 10.23\% | 4.98 | 1.02 | 6.00 | (0.30) | (0.02) | 5.98 |
| 2017 | 7 | 10.00 | 130.00 | 19.00 | 19.00 | 9.50\% | 12.35 | 6.65 | 10.29\% | 5.98 | 1.02 | 7.00 | (0.35) | (0.02) | 6.98 |
| 2018 | 8 | 10.00 | 120.00 | 19.00 | 19.00 | 9.50\% | 11.40 | 7.60 | 10.36\% | 6.98 | 1.03 | 8.01 | (0.41) | (0.03) | 7.98 |
| 2019 | 9 | 10.00 | 110.00 | 19.00 | 19.00 | 9.50\% | 10.45 | 8.55 | 10.45\% | 7.98 | 1.04 | 9.02 | (0.47) | (0.03) | 8.99 |
| 2020 | 10 | 10.00 | 100.00 | 19.00 | 19.00 | 9.50\% | 9.50 | 9.50 | 10.56\% | 8.99 | 1.05 | 10.03 | (0.53) | (0.04) | 10.00 |
| 2021 | 11 | 10.00 | 90.00 | 19.00 | 19.00 | 9.50\% | 8.55 | 10.45 | 10.69\% | 10.00 | 1.06 | 11.05 | (0.60) | (0.04) | 11.01 |
| 2022 | 12 | 10.00 | 80.00 | 19.00 | 19.00 | 9.50\% | 7.60 | 11.40 | 10.86\% | 11.01 | 1.07 | 12.08 | (0.68) | (0.05) | 12.03 |
| 2023 | 13 | 10.00 | 70.00 | 19.00 | 19.00 | 9.50\% | 6.65 | 12.35 | 11.08\% | 12.03 | 1.09 | 13.12 | (0.77) | (0.05) | 13.07 |
| 2024 | 14 | 10.00 | 60.00 | 19.00 | 19.00 | 9.50\% | 5.70 | 13.30 | 11.40\% | 13.07 | 1.11 | 14.18 | (0.88) | (0.06) | 14.12 |
| 2025 | 15 | 10.00 | 50.00 | 19.00 | 19.00 | 9.50\% | 4.75 | 14.25 | 11.88\% | 14.12 | 1.14 | 15.26 | (1.01) | (0.07) | 15.19 |
| 2026 | 16 | 10.00 | 40.00 | 19.00 | 19.00 | 9.50\% | 3.80 | 15.20 | 12.67\% | 15.19 | 1.19 | 16.38 | (1.18) | (0.08) | 16.30 |
| 2027 | 17 | 10.00 | 30.00 | 19.00 | 19.00 | 9.50\% | 2.85 | 16.15 | 14.25\% | 16.30 | 1.27 | 17.57 | (1.42) | (0.09) | 17.47 |
| 2028 | 18 | 10.00 | 20.00 | 19.00 | 19.00 | 9.50\% | 1.90 | 17.10 | 19.00\% | 17.47 | 1.43 | 18.90 | (1.80) | (0.12) | 18.78 |
| 2029 | 19 | 10.00 | 10.00 | 19.00 | 19.00 | 9.50\% | 0.95 | 18.05 |  | 18.78 | 1.90 | 20.68 | (2.63) | (0.18) | 20.50 |
| 2030 | 20 | - | - | 19.00 | 19.00 |  |  | 19.00 |  | 20.50 | - | 20.50 |  |  |  |

Chart 1 shows how the assets would accumulate for this example under the EAACM without the one year lag. For this case, the normal cost is $9.5 \%$ of pay each and every year and produces a $\$ 0.95$ contribution for 20 years that accumulates to $\$ 19$ at the end of the 20 years. Under this illustration, there is no UAAL, since experience is exactly as expected.

Chart 2 shows how the assets would accumulate for this example under the EAACM and OYLM as we believe is intended by the OA. For this case, the normal cost is $10 \%$ of pay beginning in year 2 and continuing for 19 years. This produces a $\$ 0.00$ contribution for 1 year and a $\$ 1.00$ contribution for 19 years that accumulates to $\$ 19$ at the end of the 20 years. Again, under this illustration there is no UAAL, since experience is exactly as expected.

Chart 3 shows how the assets would accumulate for this example under the EAACM and OYLM as implemented by the OA. Column 10 shows that the normal cost rate increases each year, starting at $10 \%$ of pay and ending at $19 \%$ of pay. This pattern of normal costs, by itself, will overfund the benefit. By the $20^{\text {th }}$ year, the normal cost contributions would generate an asset of $\$ 21.45$ (the sum of the Normal Cost in column 12). The OA also compares the assets with the next year of normal cost contributions to the accrued liabilities (which includes that next year of normal cost) to determine the UAAL. The UAAL is then amortized over 15 years in the example and added to the normal cost (the OA uses different amortization periods - 15 years is shown for simplicity). Under the example, the assets always differ from the accrued liabilities, even though there is no gain or loss. The amortization of this difference mitigates the overfunding, but does not eliminate it. The assets accumulate to $\$ 20.50$ by the time the member retires.

It is important to note that due to the effect of interest, pay increases and decrement assumptions, it is not likely that the difference between the OA's implementation and the theoretical implementation will be as great as shown in these charts (and possibly in different directions in certain cases). What can be concluded from these charts is 1 ) that the normal cost is not a level percent of pay, as intended, and 2) that a UAAL can develop without a gain or loss under the OA’s implementation.

The above charts were included in the first engagement report. One important aspect of these charts is that the normal cost is not necessarily level for an individual under the OA's implementation. However, the descriptions of the cost method contained in the POLICE report (starting on page 59) and the FIRE report (starting on page 60) imply that the method produces level normal cost for an individual. We recommend these descriptions be clarified.

## One-Year-Lag-Methodology (OYLM) - Employer Contributions versus Employee Contributions

Since members begin contributing upon employment, there is no lag in their contributions. In the implementation of the OYLM, only the employer portion of the normal costs is adjusted for the one year lag.

## Loads

Each of the Systems has loads included in liabilities for various reasons. GRS reviewed the calculations of these loads for reasonableness. We found all of the loads to be reasonable. None of the loads were of a magnitude that would warrant a more detailed analysis.

## Valuation Report Content (Applies only to POLICE and FIRE)

There have been recent changes to the Actuarial Standards of Practice regarding report content. In accordance with these changes, we recommend the following additions to the valuation reports:

1. Disclose to what extent the mortality assumption provides a margin for future improvement.
2. Identify the principal for the actuarial valuation.
3. Add a development of the experience gain/loss.
4. Provide discussion of how actual experience during the prior year compared to actuarial assumptions.
5. Add a comment that indicates the measurement may not be appropriate for other purposes.
6. Provide a statement(s) indicating future measurements may differ significantly from those provided in the report.
7. State the extent of the actuary's reliance on data provided by others (e.g., the actuary is not responsible for data errors or omissions).
8. Discuss the independence of the actuary from the plan sponsor.
9. Describe assumptions for regular disability retirees’ benefit amounts - i.e., members eligible to retire who decrement on disability are assumed to elect age and service benefits under service retirement rules in order to benefit from the VSF.

## Summary of Comments on Actuarial Methods and Report Content

1. We believe the methods used by the OA in the June 30, 2012 (Lag) actuarial valuation are reasonable and comply with Actuarial Standards of Practice.
2. We recommend that the OA add a corridor around the market value in the development of the valuation assets (actuarial value of assets).
3. We recommend the OA reconsider the use of the OYLM to determine if a less complicated approach may achieve the OA's modeling goals.
4. If the OA decides to keep the OYLM then we recommend the OA apply the method at the individual level in a manner that is level for each member throughout their career.
5. Include additional disclosures in the valuation reports.

With regard to comment 4, GRS developed a modification to its programming of the June 30, 2010 actuarial valuations for NYCRS to implement the OYLM at the individual level. Under this modification, the present value of benefits, as of the valuation date, are computed in the same manner. However, the entry age normal cost is computed to be the present value of employer financed benefits at entry age divided by (the present value of future salary at entry age, less the expected pay during the first year of employment). This rate is then applied to the present value of future pay at attained age to determine the present value of future employer normal cost or applied to the expected pays for FY 2012 to determine the employer normal cost for FY 2012. Please see our first engagement Actuarial Audit of Employer Contributions report for further details.

## SECTION C

GRS REPLICATIONS AND FINDINGS BY SYSTEM

## REPLICATIONS AND FINDINGS BY SYSTEM

## NYCERS

During the contribution audit for NYCERS, GRS was able to replicate the OA's computation of total present value of benefits, accrued liabilities, actuarial value of assets, unfunded actuarial accrued liabilities and employer contributions within tolerances. While a couple of items failed one of the two tests, no items failed both tests. This indicates that all items passed our tolerance tests.

GRS was also able to replicate the OA's computation of the employer contributions within tolerances, both in aggregate and by employer group for all obligors except the State Judiciary Group. We understand that details of the computations down to the obligors have been traditionally outside the scope of the contribution audits. However, the OC did request that we show our computation of the employer contributions by obligor for NYCERS. This is shown on the table on page C-3. The only group outside the tolerance was the State Judiciary. The reason was a difference in the present value of benefits for the retirees (all members of this group are retired) of $3 \%$. Relative to total liabilities, GRS does not feel this is material. GRS has also reviewed the method the Actuary used to allocate contributions to the obligors and believes it to be reasonable and within the requirements of the New York City Administrative Code, Section 13-127. The method can briefly be described as follows:

Assets were initially allocated based on liabilities from the June 30, 2010 actuarial valuation and tracked by cash flow and investment return by the Obligor to the current valuation. In the current valuation, NYCERS is valued in total, as required by law. Then each Obligor is valued as a separate group and the individual Obligor results are then adjusted so that the sum of the Obligors matches the total NYCERS results.

We have the following findings for the NYCERS contribution audit (all of which were identified during the first engagement and are still outstanding):

1. Active members over age 75 on the valuation date appear to be valued as if they were exactly 75 on the valuation date. GRS recommends that members be valued at their actual age. This issue does not affect a significant number of members.
2. GRS recommends the OA review the modeling of future deferred members (current actives who are assumed to quit after vesting and before retirement eligibility). Future deferred members are assumed to commence benefits at first eligibility. However, current deferred members are assumed to commence benefits in accordance with the retirement pattern. We recommend these assumptions be unified.
3. In NYCERS there were a number of data test cases where the data seemed to indicate the member was entitled to one particular plan, but was valued under a different plan. We recommend that the OA document the rules relative to when a member should be valued under a plan different than indicated by the data and include such rules with the summary of benefits currently maintained. Discussions with the OA have suggested that some of these cases might be related to "default" plans that were used under the prior valuation system and are in the process of being converted under the ProVal valuation system.
4. The mortality table used for Transit beneficiaries does not appear to be updated to the 2012 A\&M set of assumptions, based on our review of the test lives (outstanding status unconfirmed).

The charts on the following pages show the details of our replication, both in aggregate and by employer group.

NYCERS Comparison of Aggregate Results
(\$MILLIONS)

|  | Office of the Actuary |  | Gabriel, Roeder, Smith \& Company |  | Tolerance Test |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\underline{\text { Liabilities }}$ | Count | $\underline{\text { Liabilities }}$ | Count | Individual | Total |
| 1. Present Value of Benefits |  |  |  |  |  |  |
| a. Actives | 45,208 | 187,114 | 44,417 | 187,114 | -1.75\% | -0.95\% |
| b. Inactives | 845 | 16,353 | 864 | 16,353 | 2.22\% | 0.02\% |
| c. Terminated Vested | 625 | 8,880 | 638 | 8,880 | 2.02\% | 0.02\% |
| d. Retirees | 35,013 | 137,987 | 34,809 | 137,987 | -0.58\% | -0.25\% |
| e. Loads | 239 |  | 239 |  | 0.00\% | 0.00\% |
| f. VSF | 1,022 |  | 1,022 |  | 0.00\% | 0.00\% |
| g. Total | 82,953 | 350,334 | 81,989 | 350,334 | -1.16\% | -1.16\% |
| 2. Present Value of Future Salary | 115,207 |  | 115,069 |  | -0.12\% | -0.12\% |
| 3. Present Value of Future Employee Contribution | 2,826 |  | 2,824 |  | -0.08\% | -0.08\% |
| 4. Present Value of Future Employer Normal Costs |  |  |  |  |  |  |
| a. Actives | 12,516 |  | 12,380 |  | -1.08\% | -1.07\% |
| b. VSF | 156 |  | 156 |  | 0.00\% | 0.00\% |
| c. Total | 12,672 |  | 12,536 |  | -1.07\% | -1.07\% |
| 5. Actuarial Accrued Liability |  |  |  |  |  |  |
| a. Actives (1.a. - 4.a.) | 29,866 |  | 29,213 |  | -2.19\% | -0.97\% |
| b. Inactives (1.b.) | 845 |  | 864 |  | 2.22\% | 0.03\% |
| c. Terminated Vested (1.c.) | 625 |  | 638 |  | 2.02\% | 0.02\% |
| d. Retirees (1.d.) | 35,013 |  | 34,809 |  | -0.58\% | -0.30\% |
| e. Loads (1.e.) | 239 |  | 239 |  | 0.00\% | 0.00\% |
| f. VSF (1.f. - 4.b.) | 866 |  | 866 |  | 0.00\% | 0.00\% |
| g. Total | 67,455 |  | 66,629 |  | -1.22\% | -1.22\% |
| h. Total - Net of Retirees | 32,442 |  | 31,820 |  | -1.92\% | -0.92\% |
| 6. Development of Normal Cost |  |  |  |  |  |  |
| a. Present Value Future NC ER | 12,672 |  | 12,536 |  | -1.07\% |  |
| b. Present Value Future Salary | 115,207 |  | 115,069 |  | -0.12\% |  |
| c. Salary - Time 0.5 | 12,277 |  | 12,270 |  | -0.06\% |  |
| d. Projected Present Value Future Salary | 103,338 |  | 103,207 |  | -0.13\% |  |
| e. Normal Cost Percent | 12.263\% |  | 12.147\% |  | -0.95\% |  |
| f. Salary - Time 1.5 | 12,089 |  | 12,082 |  | -0.06\% |  |
| g. Normal Cost (Unallocated) |  |  |  |  |  |  |
| h. Normal Cost (Allocated) | 1,482 |  | 1,468 |  | -1.00\% |  |
| 7. Assets |  |  |  |  |  |  |
| a. Market Value of Assets | 42,655 |  | 42,655 |  | 0.00\% | 0.00\% |
| b. Actuarial Value of Assets | 44,677 |  | 44,677 |  | 0.00\% | 0.00\% |
| c. PV 1-Year Adj Employer Contrib | 1,412 |  | 1,412 |  | 0.00\% | 0.00\% |
| d. Administrative Expense | 101 |  | 104 |  | 3.59\% | 0.01\% |
| e. Valuation Assets (c. + d. + e. ) | 46,189 |  | 46,193 |  | 0.01\% | 0.01\% |
| 8. Assets (VSF) |  |  |  |  |  |  |
| a. Market Value of Assets | 36 |  | 36 |  | 0.00\% | 0.00\% |
| b. Variable Assets | - |  | - |  |  |  |
| c. Actuarial Value of Assets | 38 |  | 38 |  | 0.00\% | 0.00\% |
| 9. Unfunded Actuarial Accrued Liability Bases |  |  |  |  |  |  |
| a. Preliminary Unfunded June 30, 2012 | 21,228 |  | 20,398 |  | -3.91\% | -3.91\% |
| b. 1. Experience (G)/L | (122) |  | (122) |  | 0.00\% | 0.00\% |
| 2. Adjustment for ERI | 21,105 |  | 20,276 |  | -3.93\% | -3.91\% |
| 3. Total Experience (G)/L | 122 |  | 122 |  | 0.00\% | 0.00\% |
| c. Experience (G)/L, June 30, 2012 <br> d. Total | 21,228 |  | 20,398 |  | -3.91\% | -3.91\% |
| 10. Components of Contribution |  |  |  |  |  |  |
| a. Entry Age Normal Cost | 1,482 |  | 1,468 |  | -1.00\% | -0.48\% |
| b. Initial UAAL Contribution | 1,610 |  | 1,550 |  | -3.72\% | -1.93\% |
| c. Subsequent UAAL Contribution | (35) |  | (34) |  |  |  |
| d. Administrative Expenses | 57 |  | 57 |  | 0.00\% | 0.00\% |
| e. Total (Pension Expense) | 3,114 |  | 3,040 |  | -2.37\% | -2.37\% |


| Obligor | Computed FY 2014 Contribution |  | Difference |
| :---: | :---: | :---: | :---: |
|  | OA Computation | GRS Computation |  |
| New York City Transit Authority | 729,092,823 | 696,873,603 | -4.4\% |
| New York City Housing Authority | 156,387,455 | 153,335,585 | -2.0\% |
| New York City Health and Hospitals Corporation | 435,677,527 | 421,406,363 | -3.3\% |
| Triborough Bridge and Tunnel Authority | 33,936,105 | 32,683,550 | -3.7\% |
| New York City Off-Track Betting Corporation | 10,725,157 | 10,683,464 | -0.4\% |
| New York City Housing Development Corporation | 1,691,074 | 1,654,153 | -2.2\% |
| New York City School Contruction Authority | 1,504,475 | 1,456,118 | -3.2\% |
| New York City Residential Mortgage Insurance Corporation | N/A | N/A | 0.0\% |
| State Judiciary Employees | 1,060,813 | 991,321 | -6.6\% |
| New York City Municipal Water Authority | 140,670 | 138,829 | -1.3\% |
| City University of New York Senior Colleges | 35,855,239 | 34,699,558 | -3.2\% |
| All Others | 1,707,996,818 | 1,686,487,332 | -1.3\% |
| Total | 3,114,068,157 | 3,040,409,878 | -2.4\% |

## TRS

During the contribution audit for TRS, GRS was able to replicate the OA's computation of total present value of benefits, accrued liabilities, actuarial value of assets, unfunded actuarial accrued liabilities and employer contributions within tolerances. While a couple of items failed one of the two tests, no items failed both tests. This indicates that all items passed our tolerance tests.

We had two findings from the first engagement. The test lives we reviewed for the second engagement indicate that both of these findings are still outstanding.

1. Service for members appears to be rounded on the valuation data. We recommend using exact years and months of service. This affects the computation of entry age, as well as the computation of benefits.
2. Probabilities of termination for members with 20 or more years of service appear to be rounded to the nearest $1 \%$. Probabilities of termination provided to GRS by the OA were less than $1 \%$. GRS used the probabilities provided to the precision provided. This resulted in a significant difference between the present value of benefits for future deferred vested members (current actives, vested deferred decrement) between the OA computation and the GRS computation. We recommend the OA review the probabilities actually used in the valuation.

We have no additional findings from the second engagement, but have provided some suggestions in the Executive Summary for the OA to consider regarding the accounting of the TDA Fixed Funds in the development of the Actuarial Value of Assets.

The charts on the following pages show the details of our replication.

New York City Retirement Systems
Actuarial Audit of Fiscal Year 2014 (June 30, 2012 Lag Valuation)
Employer Contributions October, 2015

## TRS COMPARISON OF RESULTS <br> (\$MILLIONS)

| Office of the Actuary |  | Gabriel, Roeder, <br> Smith \& Company |  | Tolerance Test |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Liabilities | Count | Liabilities | Count | Individual | Total |

Retirees Receiving Benefits

| Pension | 33,073 |  | 32,825 |  | $-0.75 \%$ | $-0.35 \%$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Supplemental Benefits | 2,502 |  | 2,513 |  | $0.44 \%$ | $0.02 \%$ |
|  |  | 35,575 | 76,359 | 35,338 | 76,350 | $-0.67 \%$ |
| Total Retirees Receiving Benefits Liability |  |  | $-0.33 \%$ |  |  |  |

Actives, Inactives and Terminated Vesteds

| Service Retirements | 30,689 |  | 30,491 |  | -0.64\% | -0.28\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ordinary Disability | 650 |  | 639 |  | -1.71\% | -0.02\% |
| Accidental Disability | 185 |  | 183 |  | -0.92\% | 0.00\% |
| Ordinary Death | 320 |  | 320 |  | -0.06\% | 0.00\% |
| Accidental Death | - |  | - |  | 0.00\% | 0.00\% |
| Vested \& Deferred Retirements | 1,328 |  | 1,099 |  | -17.23\% | -0.32\% |
| Return of Contributions \& Misc Liabilities | 41 |  | 27 |  | 0.00\% | -0.02\% |
| Active Total | 33,213 | 112,460 | 32,759 | 112,460 | -1.37\% | -0.63\% |
| Inactives | 363 | 9,689 | 353 | 9,689 | -2.64\% | -0.01\% |
| Terminated Vested | 672 | 9,868 | 668 | 9,868 | -0.54\% | -0.01\% |
| Total Active/Inactive Liabilities without loads | 34,248 | 132,017 | 33,781 | 132,017 | -1.36\% | -0.65\% |

## Loads

| Coverages | 35 | 35 | $0.00 \%$ |
| :--- | ---: | ---: | ---: |
| Nager II Load | 75 | 75 | $0.00 \%$ |
| World Trade Center (WTC) | 6 | 6 | $0.00 \%$ |
| Reserve for Loan Insurance | 1 | 1 | $0.00 \%$ |
| Accum EE Cont Adj | 115 | 115 | $0.00 \%$ |
| Var Acct Balances | 1,413 | 1,413 | $0.00 \%$ |
| Annuitization of VFAB | 369 | 369 | $0.00 \%$ |
| Total | 2,014 | 2,014 | $0.00 \%$ |
|  |  |  | $0.00 \%$ |
| Total Present Value of Benefits | 71,837 | 71,133 | $0.00 \%$ |
| $0.000 \%$ |  |  |  |

Actuarial Accrued Liability

| Actives | 20,159 | 19,672 | $-2.42 \%$ |
| :--- | ---: | ---: | ---: |
| Inactives | 363 | 353 | $-0.83 \%$ |
| Terminated Vested | 672 | 668 | $-0.64 \%$ |
| Retirees | 35,575 | 35,338 | $-0.54 \%$ |
| Loads | 2,014 | $-0.01 \%$ |  |
|  |  |  | $-0.67 \%$ |
| Total Actuarial Accrued Liability | 58,783 | 58,046 | $-0.40 \%$ |
| 0 |  | $0.00 \%$ |  |

# TRS COMPARISON OF RESULTS <br> (\$MILLIONS) 

|  | Office of the Actuary |  | Gabriel, Roeder, Smith \& Company |  | Tolerance Test |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Liabilities | Count | Liabilities | Count | Individual | Total |
| Development of Normal Cost |  |  |  |  |  |  |
| Actives |  |  |  |  |  |  |
| PresentValueFut EE Cont. | 1,270 |  | 1,287 |  | 1.33\% |  |
| PresentValueFut N/C_Er | 11,783 |  | 11,800 |  | 0.15\% |  |
| PresentValueFutureSalary | 95,183 |  | 96,161 |  | 1.03\% |  |
| Salary - Time 0.5 (Expected Pay Paid) | 7,961 |  | 7,964 |  | 0.03\% |  |
| Projected PresentValueFutureSalary | 87,487 |  | 88,197 |  | 0.81\% |  |
| Normal Cost Percent (ER Only) | 13.47\% |  | 13.38\% |  | -0.67\% |  |
| Salary - Time 1.5 (projected ex pay paid) | 7,968 |  | 7,968 |  | 0.00\% |  |
| Normal Cost - Actives | 1,073 |  | 1,066 |  | -0.67\% |  |
| Normal Cost - Total | 1,073 |  | 1,066 |  | -0.67\% |  |

Assets

| Assets (Main Fund) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| AVA | 33,871 | 33,871 | 0.00\% |  |
| PV 1 -Year Adj Employer Contributions | 1,035 | 1,035 | 0.00\% |  |
| PV Administrative Expense Reimb | 71 | 71 |  |  |
| Due to/from TDA | (305) | (305) | 0.00\% |  |
| Total Main Fund Valuation Assets | 34,672 | 34,672 | 0.00\% |  |
| Contribution Development |  |  |  |  |
| Unfunded Actuarial Accrued Liability | 24,111 | 23,374 | -3.06\% |  |
| Amortization Factor |  |  |  |  |
| Amortization UAAL Payment | 1,887 | 1,829 | -3.06\% | -1.92\% |
| Administrative Expenses | 39 | 39 | 0.00\% | 0.00\% |
| Entry Age Normal Cost | 1,073 | 1,066 | -0.67\% | -0.24\% |
| Total Contribution | 2,999 | 2,895 | -3.46\% | -3.46\% |

## BERS

During the contribution audit for BERS, GRS was able to replicate the OA's computation of total present value of benefits, accrued liabilities, actuarial value of assets, unfunded actuarial accrued liabilities and employer contributions within tolerances. While a couple of items failed one of the two tests, no items failed both tests. This indicates that all items passed our tolerance tests.

We had six findings from the first engagement. The test lives we reviewed for the second engagement indicate that the following findings are still outstanding.

1. If the maximum allowance field is zero, the OA appears to base the first year COLA amount solely on the Supplementation field. We recommend that for these cases, the first year COLA Amount be based on the sum of the Pension, Annuity and Supplementation fields, similar to the Auto COLA (used for all future years except first year).
2. Tier II 55/25 optional plan members are valued using the old retirement pattern (pre-2012 $\mathrm{A} \& \mathrm{M})$. We recommend the retirement pattern be updated for these members.
3. The OA does not believe the service information is reliable due to the number of part time members and the inability of BERS to provide complete information regarding part time members. Therefore the OA assigns one year of service for each plan year that the member is reported as active. Membership dates are contained on the file. GRS used the membership date to test the reasonability of the integral service used by the OA and determined that the integral service used by the OA was reasonably reflective of the elapsed time between membership date and valuation date. Although the benefit is based on actual service and annualized pay, the OA models benefits in the valuation using annualized service and actual (part time) pay due to the reliability of reported service. We agree that this process provides a reasonable approximation. We recommend the OA continue to work with BERS to obtain better data for part time members.

## BERS Comparison of Results (\$MILLIONS)

|  | Office of the Actuary |  | Gabriel, Roeder, <br> Smith \& Company |  | Tolerance Test |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Liabilities | Count | Liabilities | Count | Individual | Total |
| Retirees Receiving Benefits |  |  |  |  |  |  |
| Total Pension | 1,593 | 14,874 | 1,586 | 14,874 | -0.43\% | -0.14\% |
| Total Supplemental Benefits | 211 |  | 216 |  | 1.99\% | 0.08\% |
| Taxed Deferred Annuities |  |  |  |  |  |  |
| Total Retirees Receiving Benefits Liability | 1,805 |  | 1,802 |  | -0.14\% | -0.05\% |
| Actives, Inactives and Terminated Vesteds |  |  |  |  |  |  |
| Service Retirements | 2,695 |  | 2,689 |  | -0.22\% | -0.12\% |
| Ordinary Disability | 200 |  | 196 |  | -1.75\% | -0.07\% |
| Accidental Disability | 12 |  | 12 |  | -1.69\% | 0.00\% |
| Ordinary Death | 67 |  | 65 |  | -3.30\% | -0.04\% |
| Accidental Death | - |  | - |  | 0.00\% | 0.00\% |
| Vested \& Deferred Retirements | 127 |  | 135 |  | 6.54\% | 0.17\% |
| Return of Contributions \& Misc Liabilities | 7 |  | 8 |  | 0.00\% | 0.02\% |
| Active Total | 3,107 | 27,840 | 3,105 | 27,840 | -0.08\% | -0.05\% |
| Inactives | 86 | 3,305 | 87 | 3,305 | 0.81\% | 0.01\% |
| Terminated Vested | 11 | 184 | 11 | 184 | -2.63\% | -0.01\% |
| Total Active/Inactive Liabilities without loads | 3,205 | 31,329 | 3,203 | 31,329 | -0.07\% | -0.04\% |
| Loads |  |  |  |  |  |  |
| World Trade Center (WTC) | 1 |  | 1 |  | 0.00\% | 0.00\% |
| Reserve for Loan Insurance | 0 |  | 0 |  | 0.00\% | 0.00\% |
| Accumulated EE Contribution Adjustment | 15 |  | 15 |  | 0.00\% | 0.00\% |
| Variable Account Balances | 2 |  | 2 |  | 0.00\% | 0.00\% |
| Annuitization of VFAB | - |  | - |  |  |  |
| Total | 18 |  | 18 |  | 0.00\% | 0.00\% |
| Total Present Value of Benefits | 5,028 |  | 5,023 |  | -0.09\% | -0.09\% |
| Actuarial Accrued Liability |  |  |  |  |  |  |
| Actives | 1,842 |  | 1,811 |  | -1.70\% | -0.83\% |
| Inactives | 86 |  | 87 |  | 0.81\% | 0.02\% |
| Terminated Vested | 11 |  | 11 |  | -2.63\% | -0.01\% |
| Retirees | 1,805 |  | 1,802 |  | -0.14\% | -0.07\% |
| Loads | 18 |  | 18 |  | 0.00\% | 0.00\% |
| Total Actuarial Accrued Liability | 3,763 |  | 3,730 |  | -0.89\% | -0.89\% |

# BERS Comparison of Results <br> (\$MILLIONS) 

| Office of the Actuary |  | Gabriel, Roeder, Smith \& Company |  | Tolerance Test |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Liabilities | Count | Liabilities | Count | Individual | Total |

Development of Normal Cost

| Actives |  |  |  |
| :--- | ---: | ---: | ---: |
| PresentValueFut EE Cont. | 224 | 226 | $0.67 \%$ |
| PresentValueFut N/C_Er | 1,041 | 1,068 | $2.62 \%$ |
| PresentValueFutureSalary | 9,685 | 9,701 | $0.17 \%$ |
| Salary - Time 0.5 (Expected Pay Paid) | 996 | 997 | $0.08 \%$ |
| Projected PresentValueFutureSalary | 8,721 | 8,704 | $-0.19 \%$ |
| Normal Cost Percent (ER Only) | $11.93 \%$ | $12.27 \%$ | $2.82 \%$ |
| Salary - Time 1.5 (projected ex pay paid) | 982 | 982 | $0.00 \%$ |
| Normal Cost - Total | 117 | 121 | $2.83 \%$ |

Assets

| AVA | 2,372 | 2,372 |
| :--- | ---: | ---: |
| PV 1 -Year Adj Employer Contributions | 103 | 103 |
| Admin Expenses | 19 | 19 |
| Due (To)/From TDA | 28 | 28 |
| Total Valuation Assets | 2,521 | 2,521 |

## Contribution Development

| Unfunded Actuarial Accrued Liability | 1,242 | 1,209 | $-2.70 \%$ |  |
| :--- | ---: | ---: | ---: | ---: |
| Amortization Factor |  |  |  |  |
| Amortization UAAL Payment | 87 | 85 | $-2.63 \%$ | $-1.07 \%$ |
| Administrative Expenses | 10 | 10 | $0.00 \%$ | $0.00 \%$ |
| Entry Age Normal Cost | 117 | 215 | 121 | $2.83 \%$ |
| Total Contribution |  | 216 | $0.47 \%$ | $0.47 \%$ |

## POLICE

During the contribution audit for POLICE, GRS was able to replicate the OA's computation of total present value of benefits, normal costs and accrued liabilities within tolerances. GRS was also able to replicate the OA's computation of the employer contributions within tolerances. No area failed both the individual and the aggregate tolerance test.

Although GRS replicated the OA's computation of normal costs within tolerances, we did have some difficulty with this component. A detailed analysis of the test lives indicated that the required contribution field (RASF) read in from the data file was used at each and every age of the entry age pass. This means that a deficit or addition to the formula benefit is valued due to an artificial difference between the actual and required employee contributions.

We have the following findings for the POLICE contribution audit (all of which were identified during the first engagement and are still outstanding):

1. Review the method for determining liabilities for deferred vested members. For members already terminated, the OA assumes that benefit commencement will occur in accordance with the retirement pattern for active members. However, for future deferred members, the OA assumes that benefits will commence upon first eligibility. Under the OA's methods, if deferred vested experience matches the actuarial assumptions in a particular year, the valuation calculations will show a gain even though no gain occurred. We recommend the OA make the assumed commencement of benefits the same for current deferred members and future deferred members.
2. It has been GRS' experience that uniformed members who quit before retirement eligibility typically commence benefits upon first eligibility. Absent POLICE definitive experience to the contrary, we recommend the OA assume deferred benefits will commence upon first eligibility. The GRS calculation for deferred members was based on commencement of benefits upon first eligibility.
3. We recommend the OA review the development of the RASF (required member contribution) used on the entry age pass and update accordingly.

New York City Retirement Systems
Actuarial Audit of Fiscal Year 2014 (June 30, 2012 Lag Valuation)
Employer Contributions October, 2015

# POLICE Comparison of Results <br> (\$MILLIONS) 

|  | Office of the Actuary |  | Gabriel, Roeder, <br> Smith \& Company |  | Tolerance Test |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Liabilities | Count | Liabilities | Count | Individual | Total |
| Retirees Receiving Benefits |  |  |  |  |  |  |
| SubChapter Two | \$20,840 | 46,441 | \$20,831 | 46,441 | -0.04\% | -0.02\% |
| SubChapter One | 1 | 197 | 1 | 197 | 0.00\% | 0.00\% |
| Total Pension | 20,841 | 46,638 | 20,832 | 46,638 | -0.04\% | -0.02\% |
| SubChapter Two Supplemental | 2,339 |  | 2,307 |  | -1.37\% | -0.06\% |
| SubChapter One Supplemental | 2 |  | 2 |  | 0.00\% | 0.00\% |
| Total Supplemental Benefits | 2,341 |  | 2,309 |  | -1.37\% | -0.06\% |
| Total Retirees Receiving Benefits Liability | 23,182 |  | 23,141 |  | -0.18\% | -0.08\% |

Actives, Inactives and Terminated Vesteds

| Service Retirements | 15,931 | 15,894 |  |  | -0.23\% | -0.07\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ordinary Disability | 596 | 603 |  |  | 1.17\% | 0.01\% |
| Accidental Disability | 7,048 | 6,902 |  |  | -2.07\% | -0.27\% |
| Ordinary Death | 131 | 136 |  |  | 3.82\% | 0.01\% |
| Accidental Death | 55 | 53 |  |  | -3.64\% | 0.00\% |
| Vested \& Deferred Retirements | 287 | 273 |  |  | -4.88\% | -0.03\% |
| Return of Contributions \& Misc Liabilities | 2 | 2 |  |  | 0.00\% | 0.00\% |
| Active Total | 24,050 | 34,240 | 23,863 | 34,240 | -0.78\% | -0.35\% |
| Inactives | 89 | 1,358 | 86 | 1,358 | -3.37\% | -0.01\% |
| Terminated Vested | 94 | 746 | 100 | 746 | 6.38\% | 0.01\% |
| Total Active/Inactive Liabilities |  |  |  |  |  |  |
| VSFs |  |  |  |  |  |  |
| Active | 2,391 |  | 2,411 |  | 0.84\% | 0.04\% |
| Retired | 3,585 |  | 3,527 |  | -1.62\% | -0.11\% |
| Total | 5,976 |  | 5,938 |  | -0.64\% | -0.07\% |
| $\underline{\text { Loads }}$ |  |  |  |  |  |  |
| World Trade Center (WTC) | 209 |  | 209 |  | 0.00\% | 0.00\% |
| Transfer | - |  | - |  | 0.00\% | 0.00\% |
| Reserve for Loan Insurance | 4 |  | 4 |  | 0.00\% | 0.00\% |
| RITHP Fix | - |  | - |  |  |  |
| Accum EE Cont Adj | 22 |  | 22 |  | 0.00\% | 0.00\% |
| Total | 235 |  | 235 |  | 0.00\% | 0.00\% |
| Total Present Value of Benefits | 53,626 |  | 53,363 |  | -0.49\% | -0.49\% |

Actuarial Accrued Liability

| Actives | 14,006 | 13,761 | $-1.75 \%$ |
| :--- | ---: | ---: | ---: |
| Inactives | 89 | $-0.57 \%$ |  |
| Terminated Vested | 94 | $-3.37 \%$ |  |
| Retirees | 23,182 | $-0.01 \%$ |  |
| Loads | 235 | 23,141 | $0.38 \%$ |
| VSF Active | 1,622 | $-0.18 \%$ |  |
| VSF Retired | 3,585 | $-0.10 \%$ |  |
| Total VSF | 5,207 | $0.00 \%$ |  |
|  |  | 1,613 | $-0.00 \%$ |
| Total Actuarial Accrued Liability | $-0,527$ | $-0.55 \%$ |  |

## POLICE COMPARISON OF RESULTS <br> (\$MILLIONS)

|  | Office of the Actuary |  | Gabriel, Roeder, Smith \& Company |  | Tolerance Test |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Liabilities | Count | Liabilities | Count | Individual | Total |
| $\underline{\text { Development of Normal Cost }}$ |  |  |  |  |  |  |
| Actives |  |  |  |  |  |  |
| PresentValueFut N/C_Er | 9,519 |  | 9,033 |  | -5.11\% |  |
| PresentValueFutureSalary | 30,671 |  | 30,248 |  | -1.38\% |  |
| Salary - Time 0.5 (Expected Pay Paid) | 3,453 |  | 3,451 |  | -0.06\% |  |
| Projected PresentValueFutureSalary | 27,333 |  | 26,797 |  | -1.96\% |  |
| Normal Cost Percent (ER Only) | 34.83\% |  | 33.71\% |  | -3.21\% |  |
| Salary - Time 1.5 (projected ex pay paid) | 3,387 |  | 3,385 |  | -0.06\% |  |
| Normal Cost - Actives | 1,180 |  | 1,141.05 |  | -3.26\% |  |
| VSF |  |  |  |  |  |  |
| PresentValueFutN/C_Er | 769 |  | 797 |  | 3.64\% |  |
| PresentValueFutureSalary | 30,671 |  | 30,248 |  | -1.38\% |  |
| Salary - Time 0.5 | 3,453 |  | 3,451 |  | -0.06\% |  |
| Projected PresentValueFutureSalary | 27,333 |  | 26,797 |  | -1.96\% |  |
| Normal Cost Percent | 2.81\% |  | 2.97\% |  | 5.71\% |  |
| Salary - Time 1.5 | 3,387 |  | 3,385 |  | -0.06\% |  |
| Normal Cost - VSF | 95 |  | 101 |  | 5.65\% |  |
| Normal Cost - Total | 1,275 |  | 1,242 |  | -2.60\% |  |
| Assets |  |  |  |  |  |  |
| Assets (Main Fund) |  |  |  |  |  |  |
| AVA | 26,777 |  | 26,777 |  | 0.00\% |  |
| PV 1 -Year Adj Employer Contributions | 1,306 |  | 1,306 |  | 0.00\% |  |
| PV AdminExp Reimb in Future | 35 |  | 35 |  | 0.00\% |  |
| Total Main Fund Valuation Assets | 28,118 |  | 28,118 |  | 0.00\% |  |
| Assets (VSFs) |  |  |  |  |  |  |
| PSOVSF | 222 |  | 222 |  | 0.00\% |  |
| POVSF | 575 |  | 575 |  | 0.00\% |  |
| Total Actuarial Value of VSF Fund | 797 |  | 797 |  | 0.00\% |  |
| Contribution Development |  |  |  |  |  |  |
| Unfunded Actuarial Accrued Liability Amortization Factor | 13,898 |  | 13,548 |  | -2.52\% |  |
| Amortization UAAL Payment | 1,027 |  | 1,001 |  | -2.52\% | -1.11\% |
| Admin | 19 |  | 19 |  | 0.00\% | 0.00\% |
| Entry Age Normal Cost | 1,275 |  | 1,242 |  | -2.60\% | -1.43\% |
| Total Contribution | 2,321 |  | 2,262 |  | -2.54\% | -2.54\% |

## FIRE

During the contribution audit for FIRE, GRS was able to replicate the OA valuation results well within our tolerances. We matched the OA results within our aggregate tolerances in every category. In addition, we matched the OA results within our individual tolerances in all but three categories.

The chart on the following page shows the details of this replication.

GRS has found no material issues in the FIRE contribution audit. Most of the differences between the OA calculations and the GRS calculations are attributable to differences in how age and service were rounded within the calculations. These differences were mostly offsetting in aggregate, but they result in material differences in some of the test case lives we reviewed. The difference in the rounding of service can be seen in test life comparisons predominately in the vesting decrement.

We have the following recommendations specific to FIRE (all of which were identified during the first engagement and are still outstanding):

1. Review the method for determining liabilities for deferred vested members. For members already terminated, the OA assumes that benefit commencement will occur in accordance with the retirement pattern for active members. However, for future deferred members, the OA assumes that benefits will commence upon first eligibility. Under the OA's methods, if deferred vested experience matches the actuarial assumption in a particular year, the valuation calculations will show a gain even though no gain occurred. We recommend the OA make the assumed commencement of benefits the same for current deferred members and future deferred members.
2. It has been GRS' experience that uniformed members who quit before retirement eligibility typically commence benefits upon first eligibility. We recommend the OA assume deferred benefits will commence upon first eligibility. The GRS calculation for deferred members was based on commencement of benefits upon first eligibility. GRS' calculation of liabilities for current deferred members was approximately $16 \%$ higher than the OA's as a result of the differences in assumed commencement date.
3. We recommend the OA include the liabilities for "other service." This service is currently reported on the data file. Although there are not a significant number of members with this service, it does not add any significant complications to the valuation model and is fairly simple to model.
4. We recommend that the OA review the modeling of the Auto COLA for certain beneficiaries. We identified some modeling of the Auto COLA in the test lives that differed from our expectations.

# FIRE COMPARISON OF RESULTS <br> (\$MILLIONS) 

|  | Office of the Actuary |  | Gabriel, Roeder, <br> Smith \& Company |  | Tolerance Test |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Liabilities | Count | Liabilities | Count | Individual | Total |
| Retirees Receiving Benefits |  |  |  |  |  |  |
| SubChapter Two | \$9,355 | 16,454 | \$9,359 | 16,454 | 0.04\% | 0.02\% |
| SubChapter One | 5 | 463 | 5 | 463 | 0.00\% | 0.00\% |
| Total Pension | 9,360 | 16,917 | 9,364 | 16,917 | 0.04\% | 0.02\% |
| SubChapter Two Supplemental | 903 |  | 886 |  | -1.88\% | -0.08\% |
| SubChapter One Supplemental | 7 |  | 7 |  | 0.00\% | 0.00\% |
| Total Supplemental Benefits | 910 |  | 893 |  | -1.87\% | -0.08\% |
| Total Retirees Receiving Benefits Liability | 10,270 |  | 10,257 |  | -0.13\% | -0.06\% |
| Actives, Inactives and Terminated Vesteds |  |  |  |  |  |  |
| Service Retirements | 2,750 |  | 2,740 |  | -0.38\% | -0.05\% |
| Ordinary Disability | 663 |  | 657 |  | -0.97\% | -0.03\% |
| Accidental Disability | 6,082 |  | 6,004 |  | -1.28\% | -0.37\% |
| Ordinary Death | 93 |  | 96 |  | 2.46\% | 0.01\% |
| Accidental Death | 90 |  | 87 |  | -3.99\% | -0.02\% |
| Vested \& Deferred Retirements | 29 |  | 29 |  | -0.69\% | 0.00\% |
| Return of Contributions \& Misc Liabilities | - |  | - |  | 0.00\% | 0.00\% |
| Active Total | 9,708 | 10,267 | 9,612 | 10,267 | -0.99\% | -0.46\% |
| Inactives | 4 | 12 | 5 | 12 | 9.52\% | 0.00\% |
| Terminated Vested | 4 | 30 | 5 | 30 | 23.81\% | 0.00\% |
| Total Active/Inactive Liabilities without loads | 9,716 | 10,309 | 9,622 | 10,309 | -0.98\% | -0.45\% |
| VSFs |  |  |  |  |  |  |
| Active | 465 |  | 469 |  | 0.95\% | 0.02\% |
| Retired | 579 |  | 584 |  | 0.83\% | 0.02\% |
| Total | 1,044 |  | 1,053 |  | 0.88\% | 0.04\% |
| Loads |  |  |  |  |  |  |
| World Trade Center (WTC) | 36 |  | 36 |  | 0.00\% | 0.00\% |
| Transfer | - |  | - |  | 0.00\% | 0.00\% |
| Reserve for Loan Insurance | 1 |  | 1 |  | 0.00\% | 0.00\% |
| Accum EE Cont Adj | (102) |  | (102) |  | 0.00\% | 0.00\% |
| Total | (65) |  | (65) |  | 0.00\% | 0.00\% |
| Total Present Value of Benefits | 20,966 |  | 20,867 |  | -0.47\% | -0.47\% |

Actuarial Accrued Liability

| Actives | 5,967 | 5,927 | $-0.67 \%$ | $-0.23 \%$ |
| :--- | ---: | ---: | ---: | ---: |
| Inactives | 4 | 5 | $9.52 \%$ | $0.00 \%$ |
| Terminated Vested | 4 | 5 | $23.81 \%$ | $0.01 \%$ |
| Retires | 10,270 | $-0.13 \%$ | $-0.08 \%$ |  |
| Loads | $(65)$ | 10,257 | $0.00 \%$ | $0.00 \%$ |
| VSF Active | 315 | $-65)$ | $-0.01 \%$ |  |
| VSF Retired | 579 | 313 | $0.83 \%$ | $0.03 \%$ |
| Total VSF | 894 | 884 | $0.34 \%$ | $0.02 \%$ |
|  |  |  |  | -0.28 |
| Total Actuarial Accrued Liability | 17,075 | 17,026 | $-0.28 \%$ |  |

# FIRE COMPARISON OF RESULTS (\$MILLIONS) 

|  | Office of the Actuary |  | Gabriel, Roeder, <br> Smith \& Company |  | Tolerance Test |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Liabilities | Count | Liabilities | Count | Individual | Total |
| Development of Normal Cost |  |  |  |  |  |  |
| Actives |  |  |  |  |  |  |
| PresentValueFut N/C_Er | 3,629 |  | 3,563 |  | -1.82\% |  |
| PresentValueFutureSalary | 10,940 |  | 10,885 |  | -0.50\% |  |
| Salary - Time 0.5 (Expected Pay Paid) | 1,105 |  | 1,103 |  | -0.18\% |  |
| Projected PresentValueFutureSalary | 9,872 |  | 9,782 |  | -0.91\% |  |
| Normal Cost Percent (ER Only) | 36.76\% |  | 36.42\% |  | -0.92\% |  |
| Salary - Time 1.5 (projected ex pay paid) | 1,100 |  | 1,098 |  | -0.18\% |  |
| Normal Cost - Actives | 404 |  | 400 |  | -1.10\% |  |
| VSF |  |  |  |  |  |  |
| PresentValueFutN/C_Er | 150 |  | 157 |  | 4.67\% |  |
| PresentValueFutureSalary | 10,940 |  | 10,885 |  | -0.50\% |  |
| Salary - Time 0.5 | 1,105 |  | 1,103 |  | -0.18\% |  |
| Projected PresentValueFutureSalary | 9,872 |  | 9,782 |  | -0.91\% |  |
| Normal Cost Percent | 1.52\% |  | 1.60\% |  | 5.63\% |  |
| Salary - Time 1.5 | 1,100 |  | 1,098 |  | -0.18\% |  |
| Normal Cost - VSF | 17 |  | 18 |  | 5.44\% |  |
| Normal Cost - Total | 421 |  | 418 |  | -0.84\% |  |
| Assets |  |  |  |  |  |  |
| Assets (Main Fund) |  |  |  |  |  |  |
| AVA | 8,521 |  | 8,521 |  | 0.00\% |  |
| PV 1 -Year Adj Employer Contributions | 419 |  | 419 |  | 0.00\% |  |
| Total Main Fund Valuation Assets | 8,940 |  | 8,940 |  | 0.00\% |  |
| Assets (VSFs) |  |  |  |  |  |  |
| FOVSF | 277 |  | 277 |  | 0.00\% |  |
| FFVSF | 439 |  | 439 |  | 0.00\% |  |
| Total Actuarial Value of VSF Fund | 716 |  | 716 |  | 0.00\% |  |
| Contribution Development |  |  |  |  |  |  |
| Unfunded Actuarial Accrued Liability | 7,419 |  | 7,370 |  | -0.66\% |  |
| Amortization Factor |  |  |  |  |  |  |
| Amortization UAAL Payment | 549 |  | 545 |  | -0.66\% | -0.37\% |
| Entry Age Normal Cost | 421 |  | 418 |  | -0.84\% | -0.36\% |
| Total Contribution | 970 |  | 963 |  | -0.73\% | -0.73\% |

NEW YORK CITY RETIREMENT SYSTEMS
ACTUARIAL EXPERIENCE INVESTIGATION
FOR THE FOUR-YEAR AND TEN-YEAR PERIODS ENDING JUNE 30, 2013
Distribution Date 10/23/2015

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## SECTION I

EXECUTIVE SUMMARY

## EXECUTIVE SUMMARY

Gabriel, Roeder, Smith \& Company (GRS) was retained by the Comptroller to serve as Independent Actuary under Section 96 of the New York City Charter and provide other services related to the review of the funding of the following five actuarial pension funds (collectively NYCRS or the Systems):

- New York City Employees’ Retirement System (NYCERS);
- Teachers' Retirement System of the City of New York (TRS);
- Board of Education Retirement System of the City of New York (BERS);
- New York City Police Pension Fund (POLICE); and
- New York Fire Department Pension Fund (FIRE).

GRS was required to conduct two consecutive biennial actuarial engagements, encompassing the following:

- Biennial Contribution Audits of the computed employer contributions for each System in NYCRS for fiscal years 2012 and 2014 (including an audit of actuarial accrued liabilities and actuarial valuation of assets);
- Biennial Experience Studies for the periods ending June 30, 2011 and June 30, 2013, for each System in NYCRS;
- Two Administrative Reviews of the data gathering and maintenance practices of the Office of the Actuary (OA) and each System in NYCRS (one review corresponding with each Contribution Audit); and
- Two Independent Actuarial Statements (one for each engagement); GRS, as the independent actuarial auditor, will submit a statement that will briefly describe the scope of the entire engagement, will review the entire engagement and comment on the financial condition and financing progress and policies of each System, and certify that the Systems are being funded on a sound actuarial, financial, and legal basis.

This report constitutes the deliverable with respect to the Experience Study for the second engagement. The purpose of this study is to:

- Update the Experience Study database with membership data as of June 30, 2012 and June 30, 2013;
- Mature the database with status changes;
- Review actual experience for the four-year period ending June 30, 2013 and compare with assumed experience;
- Review actual experience for the ten-year period ending June 30, 2013 and compare with assumed experience; and
- Indicate areas where experience deviated from current assumptions to an extent the Actuary can investigate and modify the current assumption, if appropriate.

Specific detail on each System is provided throughout the report. In general, we have the following initial comments:

- We find the current inflation, wage inflation and investment return assumption reasonable. However, we recommend the OA consider lowering the investment return assumption based on the current market expectations and investment policies of the Systems.
- Longevity continues to improve for the NYCRS plans and the country as a whole. The experience for NYCRS has outpaced the current assumptions and thus the post-retirement mortality assumptions needs to be updated for new information and expectations. This is the most material finding from this report.


## ORGANIZATION OF REPORT

Section II contains documentation on our processes and procedures. Section III contains an analysis on the economic assumptions, including inflation, wage inflation, and investment return. Section IV contains an aggregate analysis on post-retirement mortality. Section V contains five subsections for a summary of the results for each System, including an illustrative impact on the costs and liabilities if the proposed recommendations were adopted. Finally, Section VI provides the reconciled data for each group for each assumption by age and/or service compared to the current assumptions.

This study was conducted in accordance with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. The undersigned all have extensive experience providing actuarial and consulting services to large public retirement systems. Joseph Newton and Danny White are Members of the American Academy of Actuaries (M.A.A.A.) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. We wish to thank the Office of the Actuary ("OA") for their assistance in providing data and support information for this study.

Respectfully Submitted,


Kenneth G. Albert
Project Manager and Contribution Audit Director


Joseph P. Newton, F.S.A., E.A., M.A.A.A. Alternate Project Manager and Experience Study Director


Danny White, F.S.A., E.A., M.A.A.A. 10/23/2015 Date
Experience Study Director

## SECTION II <br> Key methodologies and procedures

## KEY METHODOLOGIES AND PROCEDURES

A periodic review and selection of the actuarial assumptions is one of many important components of understanding and managing the financial aspects of a Retirement System. Use of outdated or inappropriate assumptions can result in understated costs which will lead to higher future contribution requirements or perhaps an inability to pay benefits when due; or, on the other hand, produce overstated costs which place an unnecessarily large burden on the current generation of members, employers, and taxpayers.

A single set of assumptions is typically not expected to be suitable forever. As the actual experience unfolds or the future expectations change, the assumptions should be reviewed and adjusted accordingly.

The purpose of this report is to measure actual experience and provide our best estimate recommendations for assumptions going forward. An assumption that differs from our best estimate recommendation may still be reasonable. The fact that our best estimate recommendation is different than an assumption currently in use is not an indication of whether or not the current assumption is reasonable. There are many reasonable actuarial assumption sets that could be supported. Some reasonable assumption sets would show higher or lower liabilities or costs. For example, while our analysis may conclude that a generational approach to mortality projections is appropriate, others might argue that a different approach is also reasonable. The Actuarial Audit of Employer Contributions discussed the reasonableness of the current assumptions. That report states that methods and assumptions in use for the Fiscal Year 2014 employer contribution determination (June 30, 2012 Lag Valuation) are reasonable.

## Summary of Process

In determining liabilities and contribution recommendations for retirement plans, actuaries must make assumptions about the future. The assumptions that must be made include:

- Retirement probabilities
- Mortality probabilities
- Turnover probabilities
- Disability probabilities
- Investment return rate
- Salary increase rates
- Inflation rate

For some of these assumptions, such as the mortality probabilities, past experience provides important evidence about the future. For others, such as the investment return assumption, the link between past and future results is much weaker. In either case, actuaries should review the plan's assumptions periodically and determine whether these assumptions are consistent with actual past experience and with anticipated future experience.

In conducting experience studies, actuaries generally use data over a period of several years. This is necessary in order to gather enough data so that the results are statistically significant. In addition, if the study period is too short, the impact of the current economic conditions may lead to misleading results. It is known, for example, that the health of the general economy can impact salary and withdrawal behavior. Using results gathered during a short-term boom or bust may not be representative of the long-term trends in these assumptions. Also, the adoption of legislation, such as plan improvements or changes in salary schedules, will sometimes cause a short-term distortion in the experience. For example, if an early retirement window was opened during the study period, we would usually see a short-term spike in the number of retirements followed by a dearth of retirements for the following two-to-four years. Using a longer period prevents giving too much weight to such short-term effects. On the other hand, using a much longer period may suppress the ability to identify or adjust for real changes in patterns that may be occurring, such as mortality improvement or a change in the ages at which members retire. In our view, using a fourto ten-year period is reasonable. In a few instances, we chose to use a longer period in order to further increase the soundness of our conclusions.

The last actuarial experience investigation was performed as of June 30, 2009. For the current experience study, we have added four new years of experience data. Note that the remainder of the data overlaps with prior experience studies.

If the data leads an actuary to conclude that new tables are needed, an actuary may "graduate" or smooth the results, since the raw results can be quite uneven from age to age or from service to service.

## Sources of Data

For each System, we received the experience study database that was developed by the prior actuarial auditor, referred to in this document as the "Historical Database." GRS also received the source valuation files for the June 30, 2010 through June 30, 2013 valuation dates from the OA.

The Historical Database, consisting of data from June 30, 2001 through June 30, 2009, was rolled forward to June 30, 2013 using the same status-assignment methodology as the prior actuarial auditor.

Social Security Numbers (SSN) were used as the Unique Identifier in this database. Any record without an SSN was removed. If two (or more) records contained identical Social Security Numbers, the record(s) carrying less liability was (were) removed. Additionally, if a record had statuses associated with those of a deceased member or a beneficiary for the entire experience study period, the record was removed.

When statuses were initially assigned to the database for years June 30, 2001 to June 30, 2013, GRS determined the statuses taken together were not yet an accurate reflection of how members progress through the Retirement System. GRS then matured the database by applying certain
business rules. This is the process of updating past and current status fields in the experience study database, based on the more recent source data. For example, based on the timing of the data file, a member could be active in year 1 , filed for disability retirement late during year 1 , was being processed as the data file for year 2 was created and thus showed up in year 2 as a termination or a service retirement, received approval for disability during year 2 and thus showed up as a disability in the year 3 data file. For the valuation process, this member should be treated as a disability retirement from year 2 (the initial decrement year). The maturation process would reset the status in year 2 to be a disability retirement. In Section V, we show the business rules used for the maturation process and the changes that resulted from application of the business rules for each System individually. All business rules were applied to mature the database so that all members appear to have a more reasonable progression of statuses. The specific business rules for each System are described in Section V.

We observed a significant number of disabled members who are not initially classified as a disabled retiree and reclassified two or three years later. In addition, certain members who terminate service are classified as active-inactive, with some returning to work and some not. As a result, we have excluded the un-matured reconciliations for fiscal years 2012 and 2013 in the experience study analysis for the withdrawal and disability assumptions because information from the fiscal year 2014 and 2015 data will be needed to complete the process. In other words, the recent period analysis is for the four-year period ending June 30, 2011 and the longer-term experience period is for the eight-year period ending June 30, 2011 for these two assumptions (withdrawal and disability). We believe this adjustment significantly improves the credibility of the experience for reviewing these particular assumptions as it is likely that the experience from those two years will be modified in a future maturation process.

The data was then exported from the database and run through GRS' experience study software. The results of all valuation runs were imported into a single workbook. This workbook was used to complete the analysis of the different decrements and prepare all tables for the report.

## Data Elements and Application

In an experience study, we first determine the number of deaths, retirements, etc. that occurred during the period. Then we determine the number expected to occur, based on the current actuarial assumptions. The number of "expected" decrements is determined by multiplying the probability of the occurrence at the given age/service by the "exposures" at that same age/service. The number of exposures can only be those members eligible for the given decrement at that time. Thus they are considered "exposed" to that assumption. Finally, we calculate the $\mathrm{A} / \mathrm{E}$ ratio, where " A " is the actual number (of retirements, for example) and " E " is the expected number. If the current assumptions were "perfect," the A/E ratio would be $100 \%$. When the $\mathrm{A} / \mathrm{E}$ ratio varies much from $100 \%$, it is a sign that new assumptions may be needed. However, it is important to consider the number of "lives" exposed before drawing conclusions. The smaller the exposure, the less likely the A/E ratio will be close to $100 \%$ (except by coincidence) even for an assumption that does not need to be changed. In addition, in some cases it may be preferred to produce an A/E ratio a little above or below $100 \%$ to introduce some
conservatism. Of course, we not only look at the assumptions as a whole, but we also review how well they fit the actual results by gender, by age, and by service. Section V details how we determined the status for each individual member for each year.

## Determining Exposures

First, for each fiscal year included in the study, we tested each record on the experience study data file that had a status code (i.e., each record for which the applicable status code was nonblank) as of the beginning of the fiscal year to determine whether the record (member) met the exposure criteria to be counted as an exposure for that year for that decrement. That is, to study the experience of fiscal year X , we tested the status field corresponding to fiscal year $\mathrm{X}-1$, which is the status as of June $30, \mathrm{X}-1$. If the exposure criteria were met, the exposure count was increased by 1 for the age/service/gender node for that decrement. If the exposure criteria were not met, that member was not counted as an exposure.

The OA currently utilizes the nearest age and service at the beginning of the year to index the assumption tables and determine eligibilities for specific decrements. For example, for the June 30, 2010 valuation (Fiscal Year 2011 experience), all members with birthdates from January 1, 1960 through December 31, 1960 will be grouped together and treated as if they are age 50 for that year. This is a common approach to determine the age and/or service for a given exposure period. However, we believe this approach has drawbacks and can be improved. For example, members in several of the groups have retirement eligibilities (either reduced or unreduced) once the member attains age 55. Based on the current methodologies of determining the age for eligibilities, many members are not exposed to retirement in the year they actually turn 55. Take a member in the June 30, 2009 valuation data born on March 31, 1955. This member has an exact age of 54.25 as of the valuation date and the current procedures would group this member into the age 54 bucket for eligibilities for fiscal year 2010. Based on this approach, the model would not expose this member to retirement. However, the member will turn 55 in March of the fiscal year and thus in reality will be eligible to retire. Using the current procedures, there are large groups of members who are not exposed to retirement in the valuation (and experience study reconciliation) but who do show up as retired by the end of the year. In fact, roughly half of the members who actually retire at age 55 fall into this scenario.

We discussed an alternative model with the OA that would determine eligibilities (ages and services) as of the decrement time, or middle of the year. This is similar to using what age and service the member will attain during the next fiscal year. This would reconcile active members decrementing out even though they were not exposed to the given decrement. We performed the second engagement experience study using this alternative model and recommend the OA adopt this change in methodology in their valuations going forward.

## Counting Actual Occurrences

Next, for each member we tested the status code as of the end of the fiscal year to determine whether the member should be treated as an actual for that decrement. If the actual occurrence
criteria were met, the actual occurrence count was increased by 1 . Since the demographic actuarial assumptions being studied (all of which come from the tables of actuarial assumptions currently being utilized by the OA for their annual actuarial valuations) are based upon either the member's age (which is the case for all the demographic assumptions other than the active member withdrawal assumptions) or the member's years of service (which is the case for only the active member withdrawal assumptions), the counts of exposures/occurrences were subdivided into counts based upon the member's age or years of service in the fiscal year of the exposure/occurrence. Depending upon the System and the specific assumption being studied, further sub counts were determined by gender, tier, or other member criteria.

We treated the member as an actual whether the model had exposed the member to the probability or not. We believe this is important as otherwise the number of expected will be understated in the valuation. Using the age 55 example above, let us assume that a group has 400 members who fell into the scenario above and retired while rounding to age 54 at the beginning of the year and another 400 who were age 55 at the beginning of the year and retired. As of the beginning of the year, assume there were 2,000 members who rounded to age 55 and thus were exposed to retirement. If only the 400 who were originally exposed were included as actuals, then the probability of retirement would be $400 / 2,000=20 \%$. However, at the end of the year, there will actually be 800 members who show up retired with age 55 and the probability used in the model should be $800 / 2,000=40 \%$. We recommend a method change because it is important for the model to treat actuals and expecteds consistently.

To accomplish this, when determining actuals for retirement, we categorized members based on the age and service the member had on their retirement date and rounded to the nearest integer. Utilizing this approach, we were able to eliminate most of the members who showed to be an actual for a decrement but were not yet exposed.

## Active-Inactive Status

Prior to the 2008 data, members who terminated from service were classified into status codes that fairly clearly meant the member had terminated from service and were reconciled in the process as a termination. Beginning in 2008, members who terminated, still have a member account balance but have not retired nor completed terminated vested paperwork began to be coded as an "F" status, which is defined as "Active-Inactive." In the valuation process, the OA values these members as terminated participants. However, in prior experience studies, these members were reconciled as if they were still active.

To study the active-inactive status, we first measured how many of the June 30, 2007 members switched to status "F" (active-inactive) as of June 30, 2008. For these individuals, we found that $43 \%$ had an active status as of June 30, 2013. Of those who returned to active status, $66 \%$ returned within one year of inactivity and $84 \%$ had returned by two years of inactivity.

Thus, as part of our maturation process, members who were active, went into an F status, and then returned to work were not included as a termination. In addition, any member who had been an F in three straight years was included as a termination.

## Developing Expected Occurrences

For the demographic assumption studies, counts of expected numbers of occurrences were developed by multiplying the appropriate age-based (or service-based) probabilities times the corresponding age-based (or service-based) counts of exposures, as determined following the rules/procedures described above. Again, depending upon the System and the specific assumption being studied, additional counts of "expected" were determined based upon member gender, tier, and/or other member criteria.

## Probabilities Versus Rates

All assumptions were analyzed as if the assumption was a "probability" rather than a "rate." This is consistent with how the assumptions are utilized in the valuation. For the remainder of this report, the terms "probabilities" and "rates" can be used interchangeably to mean "probabilities" in this context.

## Validation of Historical Database

To verify the reliability of the prior actuary's database, which included data through June 30, 2009, GRS developed and matured a separate database using the OA’s valuation data from June 30, 2001 to June 30, 2013. For consistency, the Historical Database was also rolled forward to June 30, 2013 using OA valuation data from June 30, 2010 through June 30, 2013. Both databases were setup using the same status-assignment methodology as the prior actuary.

As an additional source of comparison, GRS looked at the June 30, 2013 valuation data from the OA.

GRS found that, for all decrements except termination, actual counts between the actual June 30, 2013 OA Valuation data file and the Historical Database were reasonably consistent. Based on this analysis, GRS concluded it is acceptable to rely on the Historical Database. However, the termination assumption could not be confirmed by this process and it appears members marked as Active-Inactive were treated as active members in the prior study. Based on how these members are used in the actuarial valuation, these members should be treated as a terminated (non-active) member. We have made the adjustments for past periods accordingly.

## SECTION III

ANALYSIS OF GENERAL ECONOMIC ASSUMPTIONS

## INFLATION AND INVESTMENT RETURN ASSUMPTIONS

Actuarial Standards of Practice (ASOP) No. 27, Selection of Economic Assumptions for Measuring Pension Obligations, provides guidance to actuaries giving advice on selecting economic assumptions for measuring obligations for defined benefit plans. ASOP No. 27 was revised by the Actuarial Standards Board and effective for actuarial work products with a measurement date after October 1, 2014. Our recommended economic assumptions are intended to comply with this revised practice standard.

As no one knows what the future holds, it is necessary for an actuary to estimate possible future economic outcomes. Recognizing that there is not one right answer, the current standard calls for an actuary to develop a reasonable economic assumption. A reasonable assumption is one that is appropriate for the purpose of the measurement, reflects the actuary's professional judgment, takes into account historical and current economic data that is relevant as of the measurement date, is an estimate of future experience; an observation of market data; or a combination thereof, and has no significant bias except when provisions for adverse deviation or plan provisions that are difficult to measure are included. However, the standard explicitly advises an actuary not to give undue weight to recent experience.

Each economic assumption should individually satisfy this standard. Furthermore, with respect to any particular valuation, each economic assumption should be consistent with every other economic assumption over the measurement period. Generally, the economic assumptions are much more subjective in nature than the demographic assumptions.

Inflation Assumption
By "inflation," we mean price inflation, as measured by annual increases in the Consumer Price Index (CPI). This inflation assumption underlies most of the other economic assumptions. It impacts investment return, salary increases for individual members, overall payroll growth, and cost-of-living increases. The current annual inflation assumption is $2.50 \%$.

The chart on the following page shows the average annual inflation, as measured by the increase in the Consumer Price Index (CPI-U) in each of the ten consecutive five-year periods over the last fifty years.


Source: Bureau of Labor Statistics, CPI-U, all items, not seasonally adjusted, Calendar Years
The table below shows the average inflation over various periods, ending December 2014.

| Periods Ending Dec. 2014 | Average Annual Increase in CPI-U |
| :--- | :---: |
| Last five (5) years | $1.69 \%$ |
| Last ten (10) years | $2.12 \%$ |
| Last fifteen (15) years | $2.25 \%$ |
| Last twenty (20) years | $2.28 \%$ |
| Last twenty-five (25) years | $2.52 \%$ |
| Last thirty (30) years | $2.71 \%$ |
| Since 1913 (first available year) | $3.17 \%$ |

Source: Bureau of Labor Statistics, CPI-U, all items, not seasonally adjusted
As you can see, inflation has been relatively low over the last twenty years. Even over a period of 30 or more years, inflation has averaged below $3 \%$ per year. It is hard to ignore the relatively steady inflation statistics over the last 25 years shown in the charts above.

Most of the investment consulting firms, in setting their capital market assumptions, currently assume that inflation will be less than $2.50 \%$. We examined the 2015 capital market assumption sets for seven investment consulting firms: BNY Mellon, Hewitt EnnisKnupp, JP Morgan,

Mercer Consulting, Pension Consulting Alliance (PCA), New England Pension Consulting (NEPC), and RV Kuhns. The average assumption for inflation was 2.30\%, with a range of $2.11 \%$ to $2.50 \%$.

In the Social Security Administration’s 2014 Trustees Report, the Office of the Chief Actuary is projecting a long-term average annual inflation rate of $2.70 \%$ under the intermediate cost assumption. (The low cost assumption was $2.00 \%$ and the high cost assumption was $3.40 \%$.) The Chief Actuary for the Social Security Administration reduced this assumption from the prior year from $2.80 \%$.

Another source of information about future inflation is the market for U.S. Treasury bonds. The December 31, 2014 yield for a 20-year inflation indexed Treasury bond (20-year TIPS) was $0.68 \%$ plus actual inflation. The yield for a $20-$ year non-indexed U.S. Treasury bond was $2.47 \%$. This means the bond market was predicting that inflation over the next twenty years would average $1.78 \%[(1+2.47 \%) /(1+0.68 \%)-1]$ per year. One year earlier, as of December 31, 2013, the spread between the 20-year inflation indexed and constant maturity bonds was noticeably higher, with a difference of $2.33 \%$, so there has been a noticeable change in this expectation. The imputed 30 -year inflation level is close to the 20 -year level, being $1.90 \%$ and 2.28\% at December 31, 2014 and December 31, 2013, respectively.

Also, the Philadelphia Federal Reserve conducts a quarterly survey of the Society of Professional Forecasters. Their most recent forecast (first quarter of 2015) predicts inflation over the next ten years (2015 to 2024) will average $2.1 \%$ per year. The survey forecasts have also remained relatively stable over the last few years.

Since the Retirement Systems provide a cost-of-living adjustment that is tied to the increase in CPI (i.e. $50 \%$ of the increase in CPI-U, subject to a minimum/maximum annual COLA of $1.00 \% / 3.00 \%$ ), there is some risk to selecting an inflation assumption that is too low. As a result, we recommend continued use of the $2.50 \%$ inflation assumption, which is in line, but slightly higher, than many of the benchmarks discussed.

## Investment Return Assumption

The investment return assumption is one of the principal assumptions used in any actuarial valuation of a retirement plan. It is used to discount future expected benefit payments to the valuation date in order to determine the liabilities of the plans. Even a small change to this assumption can produce significant changes to the liabilities and contribution rates. Currently, it is assumed that future investment returns will average $7.00 \%$ per year, net of investment expenses. The current assumption assumes inflation of $2.50 \%$ per annum and an annual real rate of return of $4.50 \%$, net of investment expenses.

Similar to the inflation assumption, past performance is not a reliable indicator of future performance, even when averaged over a long time period. Also, the actual asset allocation of the
trust fund will significantly impact the overall performance, so returns achieved under a different allocation are not meaningful.

The Public Plans Data as of May 7, 2015 (the most current version of the Public Fund Survey) shows that the median investment return assumption for large public plans is $7.75 \%$. Subtracting the rate of inflation assumed for each plan gives a median real rate of return of $4.50 \%$, which is consistent with the current real rate of return assumption for the New York City Retirement Systems. While we do not recommend the selection of an assumption based on prevalence information, it is still informative to identify where the New York City Retirement Systems are compared to their peers. Here is a chart showing the distribution of the investment return assumptions in the Public Plans Data:


Source: Public Plans Database (n=114). Median investment return assumption: 7.75\% nominal return.
We believe a more appropriate approach to selecting an investment return assumption is to identify expected returns given the funds' asset allocation mapped to forward-looking capital market assumptions. Since each Retirement System has a slightly different investment policy, we performed this analysis on each System based on the target asset allocation provided to GRS by the Comptroller's Office.

Below is a summary of the asset allocations for each System that was used in the analysis.

| ASSET CLASS | NYCERS | TRS | BERS | POLICE | FIRE |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Domestic Equities | $33 \%$ | $31 \%$ | $35 \%$ | $34 \%$ | $29 \%$ |
| International Equities | $17 \%$ | $17 \%$ | $22 \%$ | $16 \%$ | $17 \%$ |
| Private Equity | $7 \%$ | $6 \%$ | $6 \%$ | $7 \%$ | $7 \%$ |
| Real Assets and Real Estate | $6 \%$ | $9 \%$ | $7 \%$ | $6 \%$ | $8 \%$ |
| Hedge Funds | $4 \%$ | $0 \%$ | $0 \%$ | $5 \%$ | $5 \%$ |
| Fixed Income | $33 \%$ | $37 \%$ | $30 \%$ | $32 \%$ | $34 \%$ |
| Total | $\mathbf{1 0 0 \%}$ | $\mathbf{1 0 0 \%}$ | $\mathbf{1 0 0 \%}$ | $\mathbf{1 0 0 \%}$ | $\mathbf{1 0 0 \%}$ |

Where available, investments in these asset classes were split into subgroups to refine the analysis. For example, when identifiable, the domestic equities were classified as large cap, or small/mid cap securities and fixed income were classified into core, high yield, mortgage-backed securities, TIPS, etc., as appropriate.

Because GRS is a benefits consulting firm and does not develop or maintain our own capital market assumptions, we utilized the forward-looking return expectations developed by the following investment consulting firms:

- BNY Mellon
- JP Morgan
- Mercer Consulting
- RV Kuhns
- Hewitt EnnisKnupp
- New England Pension Consultants (NEPC)
- Pension Consulting Alliance (PCA)

These investment consulting firms periodically issue reports that describe their capital market assumptions, that is, their estimates of expected returns, volatility, and correlations. While these assumptions are developed based upon historical analysis, many of these firms also incorporate forward-looking adjustments to better reflect near-term expectations. The estimates for core investments (i.e., fixed income, equities, and real estate) are generally based on anticipated returns produced by passive index funds that are net of investment related fees. The investment return expectations for the alternative asset class such as private equity and hedge funds are also net of investment expenses. Therefore, we did not make any adjustments to account for investment related expenses.

Some of the Retirement Systems may also employ active management investment strategies that result in higher investment expenses compared to strategies that invest in passive index funds. We have assumed that active management strategies would result in the same returns, net of investment expenses, as passive management strategies.

Also, since the Retirement Systems explicitly charge employers for administrative related costs, it is not necessary to adjust the investment return assumption to account for future administrative expenses.

Given the plan's current asset allocation and the investment consultant's capital market assumptions, the development of the average nominal return, net of investment expenses, is provided in the following tables.

The forward-looking return expectations were mapped to each System's target asset class allocation. During our analysis, we recognized that the actual asset allocation as of December 31, 2014 was somewhat different than the policy target. Based on information provided by the investment team in the Comptroller's Office, we understand the differences in the asset allocations are primarily due to short-term tactical strategies and assets not yet allocated to new target asset classes, such as emerging market debt. Since we are establishing a long-term assumption, we are disregarding these short-term deviations from the policy target in our analysis.

The following table provides the average rates of arithmetic return for each of the Retirement Systems.

## Expected Nominal Return Based on Short-Term Capital Market Assumptions (Return Expectations for the Next 7 to 10 Years)

| RETIREMENT SYSTEM | NYCERS | TRS | BERS | POLICE | FIRE |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Average Expected Return | $7.04 \%$ | $6.99 \%$ | $7.27 \%$ | $7.05 \%$ | $6.96 \%$ |

The average expected return for BERS is slightly higher than the other Systems because the investment policy for that that System is slightly different. Specifically, according to the adjusted investment policy, they have a higher percentage of assets allocated to equities and a slightly lower percentage of assets invested in fixed income securities.

In addition to examining the expected one-year return, it is important to review anticipated volatility of the investment portfolio and to understand the range of net returns that could be produced by the investment portfolio. The table below provides the $40^{\text {th }}, 50^{\text {th }}$, and $60^{\text {th }}$ percentiles of the 10 -year geometric average of the expected nominal return, net of investment expenses, as well as the probability of exceeding the current $7.00 \%$ assumption.

## Expected Annual Geometric Returns and Return Probabilities (Based on Intermediate-Term Capital Market Assumptions)

| RETIREMENT SYSTEM | NYCERS | TRS | BERS | POLICE | FIRE |
| :--- | :---: | :---: | :---: | :---: | :---: |
| $60^{\text {th }}$ Percentile | $7.04 \%$ | $7.00 \%$ | $7.22 \%$ | $7.05 \%$ | $6.99 \%$ |
| $50^{\text {th }}$ Percentile | $6.39 \%$ | $6.35 \%$ | $6.51 \%$ | $6.39 \%$ | $6.36 \%$ |
| $40^{\text {th }}$ Percentile | $5.73 \%$ | $5.70 \%$ | $5.80 \%$ | $5.73 \%$ | $5.73 \%$ |
| Probability of Exceeding <br> $7.00 \%$ | $41 \%$ | $40 \%$ | $43 \%$ | $41 \%$ | $40 \%$ |

Clearly, the forward-looking expectation is more likely than not to achieve an investment return that is less than the $7.00 \%$ assumption over the intermediate term. Also, these expectations have lowered materially in the past 12-18 months, mainly due to continued decreases in bond yields. For example, this same exercise last year based on the NYCERS portfolio yielded a $6.60 \%$ expected return and $46 \%$ probability of achieving $7.00 \%$. The decrease was driven primarily by a drop in the average forward-looking bond return from $3.63 \%$ to $3.13 \%$ across all of the consulting firms. We consider a $5 \%$ decrease in the probability to be meaningful.

The capital market assumptions provided by the investment consultants and used in the analysis above are based on a 7 - to 10 -year investment horizon. Investment consultants develop their forecast assumptions with this time horizon in part because most pension investment management teams use this time period for developing and monitoring their investment strategies.

On the other hand, the investment return assumption used in the actuarial valuation has a longer investment horizon. Therefore, it is necessary to identify and reflect differences in the economy and financial markets over the short-term and long-term time horizon.

Expected investment returns can be thought of as the sum of a risk-free rate of return and a risk premium. This is the fundamental premise in the Capital Asset Pricing Model (CAPM) that is used in Modern Portfolio Theory. Riskier investments have a higher risk premium to compensate the investor for the increased uncertainty. Generally, the risk premium for each asset class is constant over long periods of time. But there can be differences in the risk-free return, depending on the investor's time horizon. We define a risk-free investment as one where the expected return is known with absolute certainty. This also means that the risk-free investment has no default and reinvestment risk. Based on this definition, we believe it is reasonable to benchmark a risk-free rate using zero coupon U.S. Treasury securities. Thus a 10year risk-free rate is equal to the current yield of a 10 -year zero coupon U.S. Treasury bond, and a 20 -year zero coupon U.S. Treasury bond is the risk-free rate for a 20 -year time horizon. For the longer-term point, we have chosen the 20-year yield because it is close to an approximation of the duration of the liabilities of the Systems, meaning the average, interest-discounted benefit payment is expected to be paid 20 years from the valuation date (assuming an open group). As of May 9, 2015, the yields of the 10-year and 20-year zero coupon Treasury bonds were $2.62 \%$ and $3.12 \%$, respectively. Therefore, it is reasonable to assume that as the investment time horizon expands from 10 years to 20 years, the risk-free rate of return and corresponding expected nominal return on the portfolios would be $0.50 \%$ higher over the longer, 20 -year time horizon.

The table on the following page restates the $40^{\text {th }}, 50^{\text {th }}$, and $60^{\text {th }}$ percentiles of the 20 -year geometric average of the expected nominal return, net of investment expenses, as well as the probability of exceeding the current $7.00 \%$ assumption, based on the same short-term capital market assumptions adjusted to reflect the different risk-free returns due to the different
investment time horizons. Please note that if this process has a bias, it is likely to be to overstate long-term return expectations.

## Expected Annual Geometric Returns and Return Probabilities (Based on Intermediate-Term Capital Market Assumptions Adjusted by GRS to Reflect a 20-Year Investment Horizon)

| RETIREMENT SYSTEM | NYCERS | TRS | BERS | POLICE | FIRE |
| :--- | :---: | :---: | :---: | :---: | :---: |
| $60^{\text {th }}$ Percentile | $7.55 \%$ | $7.51 \%$ | $7.72 \%$ | $7.56 \%$ | $7.50 \%$ |
| $50^{\text {th }}$ Percentile | $6.89 \%$ | $6.85 \%$ | $7.01 \%$ | $6.89 \%$ | $6.86 \%$ |
| $40^{\text {th }}$ Percentile | $6.23 \%$ | $6.20 \%$ | $6.30 \%$ | $6.24 \%$ | $6.23 \%$ |
| Average Probability of <br> Exceeding 7.00\% | $49 \%$ | $48 \%$ | $50 \%$ | $49 \%$ | $48 \%$ |

Based on an arithmetic mean of approximately $7.00 \%$ for each of the Systems, we find the current 7.00\% reasonable.

However, even after adjusting for time horizon, the results show that the probability of the investment return exceeding the $7.00 \%$ return assumption are slightly less than $50 \%$. While there is nothing certain in these probabilities as they are also based on assumptions, based on this analysis and the current investment portfolios we recommend the OA consider lowering the assumed investment return. While the likelihood of attaining a $7.00 \%$ investment return is closer to $50 \%$ over the next longer term, the probabilities over the next decade are much lower. If the returns over this period do in fact underperform, it would lead to actuarial losses and increased employer contributions. For illustrative purposes, we have shown the financial impact of a 6.75\% assumption for each System in the impact section.

We believe this recommendation satisfies the reasonable assumption requirement under ASOP No. 27 as revised and adopted in September 2013. Also, this recommendation is consistent with the recommendations regarding the use of an investment return assumption that is estimated to be realizable at least $50 \%$ of the time from a report released by the Society of Actuaries Blue Ribbon Panel on public pension plan funding in February 2014.

## General Wage Inflation

The OA currently assumes that General Wage Inflation will be $0.50 \%$ above price inflation. The $0.50 \%$ represents the real wage growth over time.

Historically, General Wage Inflation almost always exceeds price inflation. This is because wage inflation is in theory the result of (a) price inflation, and (b) productivity gains being passed through to wages. For the last 10 years, for the economy as a whole, wage inflation has outpaced price inflation by about $0.45 \%$, and for the last 20 years, wage inflation has exceeded price
inflation by about $0.85 \%$. Since 1951, wage inflation has been about $1.00 \%$ larger than price inflation each year.

The current assumption is consistent with national trends. It is reasonable to expect more pressure on depressing the rate of future salary increases due to projected increases in the cost of providing employee retirement and healthcare benefits.

## Individual Salary Increase Rates

In order to project future benefits, an actuary must project future salary increases. Employees receive salary increases for a variety of reasons:

- Across-the-board increases for all employees;
- Across-the-board increases for a given group of employees;
- Increases to a minimum salary schedule;
- Additional pay for additional duties;
- Step or service-related increases;
- Increases for acquisition of advanced degrees or specialized training;
- Promotions; or
- Merit increases, if available.

The salary increase assumption used in an actuarial valuation is meant to reflect all of these types of increases.

An actuary should not look at the overall increases in payroll in setting this assumption because payroll can grow at a rate different from the average pay increase for individual members. To analyze salary increases, we examine the actual increase in salary for each member who is active in two consecutive fiscal years.

Salary increases for governmental employees can vary significantly from year to year. When the employer's tax revenues stall or increase slowly, salary increases often are small or nonexistent. During good times, salary increases can be larger. Also, the pattern of contracts being negotiated with retroactive provisions can cause volatile patterns. Our experience across many governmental plans shows several occasions in which salary increases will be low for a period of several years followed by a significant increase in one year. Therefore, we prefer to use data over a longer period in establishing these assumptions.

Most actuaries recommend salary increase assumptions that depend on the member's age or service, especially for large, public retirement systems. It is typical to assume larger pay increases for younger or shorter-service employees. This reflects pay increases that accompany step increases, changes in job responsibility, promotions, demonstrated merit, etc. The experience shows salaries have been more closely correlated to service (rather than age), as promotions and productivity increases tend to be greater in the first few years of a career, even if the new employee is older than the average new hire.

We analyzed the salary increases based on the change in the member's reported pay from one year to the next. That is, we looked at each member who appeared as an active member in two consecutive valuations individually, and measured his/her salary increase. Then we grouped the increases for all members with the same service, and determined their average increase.

If we graph the increases by service, we usually get a graph where the increases are larger for shorter service employees and then level out at a lower level after a period that may be ten to twenty-five years. It might look like this, although in practice not this smooth:


Therefore, we divide the salary increase assumption into two pieces:

1. Determining the assumption for long-service employees; and
2. Determining the additional increases to be applied to shorter-service employees.

## Salary Increase Assumptions for Long-Service Employees

Many of the factors that result in pay increases are largely inapplicable or have diminished importance for longer-service employees. Step or service-related increases have stopped or are minimal. Promotions occur with less frequency. Additional training or acquisition of advanced degrees usually occurs early in the career. In theory, then, salary increases for longer-service employees are almost entirely driven by wage inflation and only a minimal amount of merit should be assumed. The Actuary currently utilizes this two-component salary assumption, assuming long-service employees will have salary increases equal to General Wage Inflation (3.00\% above) plus a small factor for merit.

We agree that this approach is reasonable.
However, in this type of analysis, when there is a merit assumption for the long-term members, it is difficult to separate where the General Wage Inflation ends and where the merit begins for those members. For example, if the actual inflation was exactly $2.50 \%$ and the actual increase for the long-term members was $3.50 \%$, how would one differentiate how much of the additional $1.00 \%$ was a general increase and how much was merit?

In an attempt to separate the two items, we collected data providing the negotiated across-theboard salary increases during the study period. The negotiated increases should represent the general wage increase, and then any increase received by long-service members above this amount would be the additional merit. There were enough inconsistencies between the negotiated increases and the actual increases seen in the valuation data, in amount and timing, that we did not feel a direct comparison would be credible enough to provide a meaningful merit assumption.

Thus, for the merit analysis, we have categorized all increases above inflation for long-service employees as the General Increase over Inflation (assuming the general wage increase will be $1.00 \%$ above inflation in the example above). The analysis for each System is provided in Section V.

## Overtime Assumptions

For NYCERS, POLICE, and FIRE, members can include overtime in their pensionable earnings. For all groups, the amount of actual overtime worked during the experience period has been materially higher than the current assumptions, especially in the period just before retirement that would be included in their pension benefit calculation. We understand the City is implementing several strategies to curtail the amount of overtime going forward for most groups, including adding additional members, and that may be taken into account for setting the prospective assumption. However, in our experience with similar situations with other clients, curtailing the amount of overtime, especially during the final averaging period, has proven to be difficult. We have provided recommendations for these assumptions, but the OA will have more detail on the specific strategies being implemented and be in a better position to make the final decision on the new assumptions.

## SECTION IV <br> ANALYSIS OF POST-RETIREMENT MORTALITY

## Analysis of Post-Retirement Mortality

The issue of future mortality improvement is one that the governing bodies of our profession have increasingly become more focused on studying and ensuring that the actuarial profession remains on the forefront of this issue. This has resulted in recent changes to the relevant Actuarial Standard of Practice, ASOP 35, Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations, and published practice notes. This ASOP now requires pension actuaries to make and disclose an assumption as to expected mortality improvement after the valuation date. The following are excerpts directly from the Standard:
"As mortality rates have continued to decline over time, concern has increased about the impact of potential future mortality improvements on the magnitude of pension commitments. Section 3.5.3 of current ASOP No. 35 lists "the likelihood and extent of mortality improvement in the future" as a factor for the actuary to consider in selecting a mortality assumption. In the view of many actuaries, the guidance regarding mortality assumptions should more explicitly recognize estimated future mortality improvement as a fundamental and necessary assumption, and the actuary's provision for such improvement should be disclosed explicitly and transparently."
"The resources reviewed by the Pension Committee showed that demographers generally expect that mortality will continue to improve. These resources noted that some scientists argue that human life has biological limits, and that the rate of mortality improvement could slow as a result of obesity or other emerging health issues, but that such limits and countervailing factors do not alter the scientific consensus of likely continuing improvements in mortality."
"The actuary should consider the effect of mortality improvement both prior to and subsequent to the measurement date. With regard to mortality improvement, the actuary should do the following:
i. adjust mortality rates to reflect mortality improvement prior to the measurement date. For example, if the actuary starts with a published mortality table, the mortality rates may need to be adjusted to reflect mortality improvement from the effective date of the table to the measurement date. Such an adjustment is not necessary if, in the actuary's professional judgment, the published mortality table reflects expected mortality rates as of the measurement date.
ii. include an assumption as to expected mortality improvement after the measurement date. This assumption should be disclosed in accordance with Section 4.1.1, even if the actuary concludes that an assumption of zero future improvement is reasonable as described in Section 3.1. Note that the existence of uncertainty about the occurrence or magnitude of future mortality improvement does not by itself mean that an assumption of zero future improvement is a reasonable assumption."

As you will note, we have highlighted the above sentences we feel need to be emphasized. To meet this standard, a recent trend in actuarial models is to use mortality tables that explicitly
incorporate projected mortality improvements over time. This type of table (or series of tables) is called "generational mortality." Historically, actuarial models have been constrained to static mortality tables due to two primary reasons: (1) a general belief that there was a limit on the ultimate longevity and (2) the added complexity of a generational mortality type model and limitations in computational power. A static mortality table would be used and updated with each experience study to reflect the most recent mortality. Historically, this would almost always result in adoption of lower mortality rates creating losses for plans and unfunded past service liabilities.

With advances in computing power, it has become a more mainstream practice to incorporate generational mortality models. The idea behind adopting a generational mortality model is to avoid the experience study "correction" factor. While minor adjustments may need to be made in the future, the constant bias towards needing to reduce mortality rates is avoided.

The expectation of continued increases in longevity is supported by national trends. The following graph provides the expected remaining lifetime in years for a 65 -year old retiree measured beginning in 1960. Notice the recent uptrend in female longevity after almost two decades of relatively minimal improvement. This significant change in pattern (most of which has occurred since 2004) has led most of the actuarial profession to agree that future improvements will likely continue.

## Life Expectancy in Years, Current Age 65



National Vital Statistics Reports, Vol 58, No 21, June 2010
National Vital Statistics Reports, Vol 60, No 4, January 2011

The most current mortality tables and improvement assumptions have recently been published in a report by the Society of Actuaries’ Retirement Plans Experience Committee's (RPEC) in October of 2014. The following are excerpts from the Society of Actuaries Report on their mortality improvement scale, referred to as MP-2014:
"In late 2009, RPEC initiated a comprehensive analysis of pension plan mortality experience in the United States. At an early stage of its analysis, the Mortality Improvement subcommittee of RPEC noticed that mortality improvement experience in the United States since 2000 was clearly different from that anticipated by Scale AA. In particular, there was a noticeable degree of mismatch between the Scale AA rates and actual mortality experience for ages under 50, and the Scale AA rates were lower than the actual mortality improvement rates for most ages over 55. Given that the full Pension Mortality Study was still many months from completion at that time, the SOA decided to publish interim mortality improvement Scale BB, which provided pension actuaries with a more up-to-date alternative to Scale AA for the projection of base mortality rates beyond calendar year 2000."

RPEC recognizes that there is a wide range of opinion with respect to future levels of mortality and that the assumptions underlying mortality improvement reflect some degree of subjectivity. RPEC characterized the assumptions that underpin Generational Scale BB (including a $1.0 \%$ long-term rate of mortality improvement and limited cohort effects) as a temporary projection scale to overcome perceived short-comings of Scale AA (noted above) until RPEC could finalize an updated generational mortality assumption, which they now refer to as MP-2014.

Based on the recent strengthening of the Standards of Practice, GRS has been increasingly recommending our clients use a fully generational approach for mortality assumptions, and almost all of them have accepted the new projection method. By doing this, future mortality rates will be projected to continually decrease each year. Therefore, the life expectancy at age 60 for someone reaching 60 now will not be as long as the life expectancy for someone reaching 60 in 2020, and their life expectancy will not be as long as someone reaching 60 in 2040, etc. For illustrative purposes, the following table provides the life expectancy for individuals retiring in future years, based on the recently published Retirement Pensioners 2014 (RP-2014) healthy annuitant mortality tables, with full generational projection using the Society of Actuaries mortality improvement scale MP-2014.

| Proposed Life Expectancy for an Age 60 Retiree in Years |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Gender | Year of Retirement |  |  |  |  |
|  | 2010 | 2015 | 2020 | 2025 | 2030 |
| Male | 25.6 | 26.1 | 26.5 | 27.0 | 27.4 |
| Female | 28.1 | 28.5 | 29.0 | 29.4 | 29.8 |

Because of this assumption of continuous improvement, life expectancies for today's younger active members are expected to be materially longer than those of today's retirees. The improvement over time is built into the projections for individual members.

It is important to note that the liabilities and costs for the current valuation would be equal under a static or generational approach to mortality improvement if the static tables are set properly. It is the systematic inclusion of continuous improvement that will impact future valuations and experience studies.

## NYCRS Specific Analysis

NYCRS' actuarial liabilities and retirement contribution rates depend in part on how long retirees live. If members live longer, benefits will be paid for a longer period of time and the liability and ultimate employer contribution rates will be larger.

Based on experience observed in prior experience studies, the OA currently has separate mortality tables for all five individual Systems. This is a fairly common practice and is appropriate because individual employee groups may have measurably different rates of mortality.

The following graphic provides the life expectancy, in years, from a given age for each classification of retiree. These values are based on the actual data, not on the current assumption.


As shown, the life expectancy for retirees in TRS is substantially larger than the life expectancy of the retirees in the other Systems. Retirees in FIRE have the second highest life expectancy, followed by retirees in POLICE. The other classifications are under NYCERS and currently share the same mortality table. This experience supports the use of slightly different mortality assumptions (e.g., different multipliers, age set-backs, or different versions of base tables) for the Systems with materially different mortality expectations.

Currently, the OA has "Base" tables and "Valuation" tables. The Base tables represent the fit to the data as of the end of the prior experience study, June 30, 2009. The Valuation tables are the Base tables projected forward to account for future improvements in mortality using Scale AA.

When choosing an appropriate mortality assumption, actuaries typically use standard mortality tables, unlike when choosing other demographic assumptions. They may choose to adjust these standard mortality tables, however, to reflect various characteristics of the covered group, and to provide for expectations of future mortality improvement (both up to and after the measurement date). If the plan population has sufficient credibility to justify its own mortality table, then the use of such a table also could be appropriate. Factors that may be considered in selecting and/or adjusting a mortality table include the demographics of the covered group, the size of the group, the statistical credibility of its experience, and the anticipated rate of future mortality improvement.

The mortality tables currently used in the annual valuation for non-disabled retirees and for beneficiaries receiving benefits are System specific tables, projected using scale AA and based on the individual experience of each group. The tables have separate rates for males and females. The current application is what we refer to as a "static" table. The mortality rate for a 65 -year-old male is projected to be the same in 30 years as it is today, with no accommodations for continued mortality improvements expected over time.

We first measured the credibility of the dataset to determine whether standard, unadjusted tables should be used or if statistical analysis of NYCRS specific data was warranted. Based on a practice note issued by the American Academy of Actuaries in the Fall of 2011, a dataset needs 96 expected deaths for each gender to be within $+/-20 \%$ of the actual pattern with $95 \%$ confidence. We believe $+/-20 \%$ is a rather large range to be considered fully credible. Other sources state higher requirements, such as 1,000 deaths per gender. The following table gives the number of deaths needed by gender to have a given level of confidence that the data is $+/-\mathrm{X} \%$ of the actual pattern.

| Standard Score | Confidence | $\begin{aligned} & 99 \%- \\ & 101 \% \end{aligned}$ | $\begin{aligned} & 97 \%- \\ & 103 \% \end{aligned}$ | $\begin{aligned} & 95 \%- \\ & 105 \% \end{aligned}$ | $\begin{aligned} & 90 \%- \\ & 110 \% \end{aligned}$ | $\begin{aligned} & 80 \%- \\ & 120 \% \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0.674 | 75\% | 4,543 | 505 | 182 | 45 | 11 |
| 1.282 | 80\% | 16,435 | 1,826 | 657 | 164 | 41 |
| 1.645 | 90\% | 27,060 | 3,007 | 1,082 | 271 | 68 |
| 1.96 | 95\% | 38,416 | 4,268 | 1,537 | 384 | 96 |
| 2.576 | 99\% | 66,358 | 7,373 | 2,654 | 664 | 166 |

Using this information, 1,082 deaths are needed by gender to have $90 \%$ confidence that the data is within $+/-5 \%$ of the actual pattern. NYCERS General had 12,721 male deaths during the 10 -year period, clearly indicating they are a fully credible group. Other groups are smaller, but even the 10-year data for FIRE had 1,970 male deaths, indicating very high credibility. Based on this level
of credibility, we conclude it is appropriate for the Systems to use non-standard, System specific mortality tables.

We begin by determining the expected number of deaths in each year at each age for males and females. Then we compare the actual number to the expected number. The ratio of the actual deaths to the expected deaths (the $\mathrm{A} / \mathrm{E}$ ratio) tells us whether the assumptions are reasonable. When using a static mortality table, an A/E ratio between $110 \%$ and $120 \%$ has traditionally been desired for conservatism and includes a margin for continued future improvements in mortality rates. Thus, the desired $\mathrm{A} / \mathrm{E}$ level is $110 \%-120 \%$ when compared to the Valuation tables. $100 \%$ $\mathrm{A} / \mathrm{E}$ would be desired for comparison to the Base tables.

The results by individual System are provided in Section V. As shown, the current assumption for some groups falls into the desired range. For others, the experience has overtaken a large portion, if not all, of the margin for future mortality improvements. The mortality improvement can be easily identified when you compare the four-year experience ending June 30, 2005 to the four-year experience ending June 30, 2013. The following chart illustrates these mortality improvements by comparing the life expectancies during these two periods. The colored bar is the actual life expectancy for the four-year period ending 2005 and the shaded area on top is the amount of improvement when compared to the four-year period ending 2013:


## GRS' Recommendation

Based on our observations regarding the rate of improvement in mortality, we recommend the Actuary change the method currently used to anticipate future mortality improvement. Rather than using a static table with built-in margin at the valuation date, we recommend the use of a base mortality table, based on the System's experience, and a separate, explicit assumption for continual improvement in the rates of mortality in the future. We will discuss this in two parts, the
recommended base mortality assumption, and the recommended mortality improvement assumption.

## Recommended Base Mortality Assumption

Since each of the Systems has enough experience to credibly model post-retirement mortality, we have developed and recommended base mortality assumptions that are specific to each Retirement System. Due to the lack of female retirees in POLICE and FIRE, male-only mortality assumptions were developed for these two Systems. For the female assumptions in these two Systems, we started with the female assumption for NYCERS and made an adjustment based on the difference between the male assumption for NYCERS and the male assumption for the specific System. The adjustment factor was calculated as the quotient of the averaged proposed mortality rates from ages 65 to 75 for each of the Systems.

The mortality assumption for each System, except FIRE, is based on the System's experience for the four-year period ending June 30, 2013 to ensure that the most recent improvement is reflected. Since the retiree population for FIRE is smaller than the other groups, it was necessary to use the experience for the ten-year period ending June 30, 2013 for this System to have sufficient credibility to develop a mortality assumption based on this System's experience. We intentionally used a four-year period for developing a mortality assumption because this is the most recent experience and reflects the most recent improvements in longevity. Using a larger experience period would temper real changes that have occurred in the mortality assumption due to real changes, or improvements, observed in this assumption.

The process used to develop the recommended mortality assumptions is generally the same for each System. Mortality rates for the core ages of retirees, beyond age 60, are based on the System's experience, using an exponential model to provide a smooth fit to the midpoint of the experience. Mortality rates for the outlier ages, ages under 50, are equal to a multiple of the most recently published RP-2014 mortality assumptions (adjusted back to the central point of the experience period using projection scale MP-2014). Finally, the mortality rates for the transitional age ranges, ages 50 to 59, were developed using a cubic spine method to orderly transition between the mortality rates between the core and outlier age ranges.

The final step in the creation of the base mortality assumption was to project the preliminary table from the center point of the analysis period (i.e., the year 2008 for FIRE, and the year 2011 for all other Systems) to the year 2014 using the mortality improvement scale MP-2014.

## Recommended Mortality Improvement Assumption

There are currently three commonly discussed mortality improvement assumptions used by pension actuaries for valuing pension plan liabilities, each released by the Society of Actuaries. These mortality improvement assumptions include: Scale AA, Scale BB, and Scale MP-2014.

Scale AA is based upon a blend of mortality improvement trends among Civil Service Retirement System (CSRS) and Social Security Administration participants between 1977 and 1993. Since its official release in 1995, it has become the most widely adopted improvement scale for use by both public and private institutions within the United States. Scale AA is the one used in the current assumption set and was the only scale available when the current assumption set was developed.

The Society of Actuaries’ Retirement Plans Experience Committee (RPEC) initiated a pension mortality study in 2010. At an early stage of its analysis, RPEC noticed that mortality experience since 2000 has improved at a faster rate than anticipated by Scale AA. As a result, RPEC issued another mortality improvement scale, Scale BB, in the year 2012 as an alternative mortality improvement assumption for pension actuaries to use.

In October 2014, RPEC issued final reports of the mortality study that was originally initiated in 2010. These final reports included the release of another mortality improvement assumption, Scale MP-2014, which represents the Committee's current best estimate of future mortality improvement in the United States.

The graphs on the following page compare the rate of mortality improvement actually experienced by the New York City Retirement Systems (all Systems combined) to the mortality improvement assumptions Scale AA, Scale BB, and Scale MP-2014. To identify the rate of mortality improvement experienced by the Retirement Systems, we compared the crude mortality rates for the years 2001 through 2005 (i.e., a midpoint year of 2003) to the crude mortality rates for the years 2009 through 2013 (i.e., a midpoint year of 2011).

## MP-2015

Just prior to the publication of this report, the SOA issued a new projection scale named MP-2015 that included updates for actual improvement experience through 2011. This new scale shows that the rate of increase during the 2010 and 2011 was slightly slower than the previous MP-2014 anticipated. The impact on contributions between using MP-2014 or MP-2015 would not be large, but it would be reasonable for the OA to consider MP-2015 when selecting the final assumption set for recommendations.

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For the Four-Year and Ten-Year Periods Ending June 30, 2013



As the first table shows, the actual rate of mortality improvement for males was reasonably close to the MP-2014 improvement assumption. The data showed that the actual rate of improvement was much higher than each of the mortality assumptions for females. We believe that some of this apparent improvement is attributable to the quality of the data for the years 2001 through 2005,
which as discussed in previous sections, was not as reliable as data after the OA changed some of its internal processes. Therefore, we believe that the actual mortality improvement of female retirees is somewhat lower than illustrated in the graph, but likely still higher than improvement scale MP-2014.

In our opinion, mortality improvement assumptions Scale BB and Scale MP-2014 are preferable over Scale AA since they are based on more current data (Scale BB and Scale MP-2014 are based on the same historical data) and more consistently model actual historical experience. A significant difference between improvement Scale MP-2014 and Scale BB is Scale MP-2014 is a two-dimensional improvement assumption that is a function of the age and calendar year, whereas Scale BB is only a function of age. While the improvement scale MP-2014 is a more complex assumption to incorporate into the valuation program (due to its two-dimensional design), Scale MP-2014 is a closer fit to the actual experience for the plans than Scale BB.

We also believe that Scale MP-2014 will more closely model the future mortality improvement that the NYCRS will experience in future years. For these reasons, we recommend the NYCRS use mortality improvement Scale MP-2014 in their respective actuarial valuations.

Finally, we have confirmed that ProVAL, the valuation system used by the OA to calculate the liabilities and costs of the Retirement Systems, is currently capable of using this more complex mortality improvement assumption.

## Beneficiary Mortality Assumption

We also analyzed the mortality experience for the beneficiaries in each of the Systems. There was significantly more experience for beneficiary females than beneficiary males with 8,572 and 633 deaths, respectively, for the ten-year period ending June 30, 2013.

The graph on the following page compares the actual rate of mortality experienced by the New York City Retirement Systems (all Systems combined) for female beneficiaries, to certain other published mortality tables.


As the graph shows, the mortality experience is very different than standard tables. In particular, the significantly higher rate of mortality at the younger ages has us questioning the credibility of the data and the lower rate of mortality at the higher ages, above age 85, is very likely attributable to survivor bias.

Given these uncertainties in the underlying experience data, we recommend the OA either (1) adopt the retiree mortality assumptions for the given group as the mortality assumption for the beneficiary as well or (2) adopt the retiree mortality assumptions (male and female) used in the valuation of NYCERS for the beneficiary mortality assumption for all Systems, including TRS, BERS, POLICE and FIRE.

## Disability Mortality Assumption

The mortality assumption for disabled retirees is less significant than the mortality assumption for healthy retirees because the number of disabled retirees and their liability is much smaller compared to healthy retirees. However, this assumption is even more System-specific than the healthy assumption because the definition of disability dictates how impaired the mortality will be.

Even though this assumption is less material than the mortality assumption for healthy retirees, we recommend updating this assumption to reflect observed improvements in life expectancy and adding an explicit assumption for continued improvement in mortality (i.e., a generational mortality assumption).

The life expectancy for disabled retirees varies by System. Below is a table with observed life expectancy by System.

## Male Life Expectancy for Disabled Retirees with 60 Years of Age for the 10-Year Period Ending June 30, 2013

| Retirement System | NYCERS General | TRS | POLICE | FIRE |
| :--- | :---: | :---: | :---: | :---: |
| Observed Life Expectancy | 17.1 | 21.7 | 21.7 | 22.9 |

Disabled retirees in POLICE and FIRE have a longer life expectancy, on average, than disabled retirees in NYCERS. This is not surprising as many members in POLICE and FIRE retire as a result of work-related injuries. We have observed these relative differences in life expectancy in other large retirement systems with public safety and general employee members.

The table below shows the mortality experience for the largest group of disabled retirees, disabled male retirees in NYCERS, for the 10-year period ending June 30, 2013. The purpose of this exhibit is to show that there is significant volatility in the actual mortality experience across the age spectrum. Much of this volatility is due to the inherent variability in experience associated with this assumption as well as the smaller pool of experience (for instance, NYCERS has 3,075 disability deaths for the 10-year period ending June 30, 2013).


The observed variation in the mortality rates is much higher in the other Systems since there is even less experience to observe. This was especially true when reviewing the assumption for disabled retirees in BERS and disabled female retirees in POLICE and FIRE.

However, using the same methodologies as healthy retirees except using 10 years of data in all Systems, we have developed System-specific tables for this assumption. Even though there is not as much credibility, we believe the table created based on the NYCRS data is more appropriate, and provided a much better fit, than the recently published RP-2014 tables.

We also recommend using the same mortality improvement assumption used to project mortality improvement for healthy retirees, Scale MP-2014.

SECTION V<br>SUMMARY RESULTS BY SYSTEM

The results of each System of the NYCERS Retirement System are quantified in this section.

For each System, the following Business Rules were applied:

| Business Rules |  |
| :---: | :--- |
| Rule \# | Rule Name |
| 1 | Death Reclassification |
| 2 | Accidental Disability Reclassification |
| 3 | Ordinary Disability Reclassification |
| 4 | Status Continuity |
| 5 | Active-Inactive Reclassification \#1 |
| 6 | Active-Inactive Reclassification \#2 |
| 7 | Service Retirement Adjustment |
| 8 | Eligibility Adjustment |

See the summary results of the individual System to determine which Business Rules were implemented.

## Business Rule 1: Death Reclassification

| Description: | Example: |  | 2006 | 2007 | 2008 | 2009 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| For a member who shows as a death in a given data file and shows a date of death in an earlier period, the death status was filled backwards until the fiscal year associated with the death date. | A member is identified as a death status in the 6/30/2009 data file with a Date of Death of $7 / 2 / 2006$. The member's 6/30/2007 status and all future statuses are updated to reflect the new Date of Death. | Initial | R | R | R | R |
|  |  |  |  |  | - |  |
|  |  | Matured | R | D | D | D |

Business Rule 2: Accidental Disability Reclassification

| Description: | Example: |  | 2002 | 2003 | 2004 | 2005 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| For members reclassifying to Accidental Disability (status code ' $J$ '), either after service retirement or after termination, GRS changed the record as though the member immediately retired under Accidental Disability. | An active member retires 8/22/2002 and is reclassified to Accidental Disability as of $6 / 30 / 2005$. The statuses for FYE 2003 and 2004 are changed to Accidental Disability. | Initial | A | R | R | J |
|  |  |  |  | $\nabla$ | - |  |
|  |  | Matured | A | J | J | J |

Business Rule 3: Ordinary Disability Reclassification

| Description: | Example: |  | 2001 | 2002 | 2003 | 2004 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| For members retiring under Ordinary Disability (status code ' $I$ '), either after service retirement or after termination, GRS changed the record as though the member immediately retired under Ordinary Disability. | An active member retires 4/23/2002 and is reclassified to ordinary disability in FYE 2004. The statuses for FYE 2002 and 2003 are changed to Ordinary Disability. | Initial | A | R | R | I |
|  |  |  |  |  |  |  |
|  |  | Matured | A | I | I | I |

Business Rule 4: Status Continuity


Business Rule 5: Active-Inactive Reclassification \#1

| Description: | Example: |  | 2008 | 2009 | 2010 | 2011 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Status B was introduced to differentiate activeinactive members that returned to service. Any active member that becomes active-inactive for a period and eventually returns to active service will have all active-inactive statuses changed to $B$. | An active member as of 6/30/2008 becomes Active-Inactive as of $6 / 30 / 2009$. When the member returns to active status in 6/30/2011, all prior active-inactive years are changed to $B$. | Initial | A | F | F | A |
|  |  |  |  |  |  |  |
|  |  | Matured | A | B | B | A |

Business Rule 6: Active-Inactive Reclassification \#2

| Description: | Example: |  | 2010 | 2011 | 2012 | 2013 |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Status C was introduced to differentiate active- <br> inactive members in the final two years of the <br> experience period. Any active member that becomes <br> active-inactive during this period will have all active- <br> inactive statuses changed to C. | An active member as of FYE 2011 <br> becomes Active-Inactive as of FYE <br> 2012. Based on this Rule, the <br> member's status for FYE 2012 and <br> 2013 is changed to C. |  |  | Initial | A | A | F | F |

Status B\&C were added to classify members as active in the reconcilation process but not include them in the salary analysis.

Business Rule 7: Service Retirement Adjustment

| Description: | Example: |  | 2004 | 2005 | 2006 | 2007 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| If MSTATC for any currently active member indicated they retired (code $90,91,92$, or 93 ), that member's status was changed to retirement, unless the status was disabled. This rule was only applied to the last four years of data (2010, 2011, 2012, and 2013) and has priority over Rule 8. | A record shows ordinary disability in 6/30/2004 and 6/30/2006 but beneficiary in $6 / 30 / 2005$. The 6/30/2005 status is changed to ordinary disability. | Initial | I | B3 | I | I |
|  |  | Matured | I | I | I | I |

## Business Rule 8: Eligibility Adjustment

| Description: | Example: |  | 2004 | 2005 | 2006 | 2007 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| If an active member's status indicated they decremented out under a decrement they were not eligible for, they were assumed to have terminated. Additionally, if a member was eligible for retirement but their status indicated they terminated, the member's status was changed to retirement. | An active member is shown to have terminated as of the $6 / 30 / 2006$ data and was eligible to retire based on their service. The member's status was changed to retirement. | Initial | A | A | T | T |
|  |  |  |  |  |  | 」 |
|  |  | Matured | A | A | R | R |

## SECTION V <br> SUMMARY RESULTS BY SYSTEM: NYCERS

## NYCERS

## Findings

The results of the four-year and ten-year experience studies are shown in Appendices I - VI. We have quantified the differences between actual experience and current actuarial assumptions as well as provided illustrative proposed assumptions we believe would be appropriate and reasonable. The tables on the page following our summary of recommendations provide a summary of the reconciliation in comparison to the current assumptions.

The following business rules were applied to the NYCERS data. A general description of each rule may be found at the beginning of Section V.

## Business Rules

| Rule \# | Rule Name |
| :---: | :--- |
| 1 | Death Reclassification |
| 2 | Accidental Disability Reclassification |
| 3 | Ordinary Disability Reclassification |
| 4 | Status Continuity |
| 5 | Active-Inactive Reclassification \#1 |
| 6 | Active-Inactive Reclassification \#2 |
| 7 | Service Retirement Adjustment |
| 8 | Eligibility Adjustment |

Based on our analysis of NYCERS, GRS recommends consideration of the following changes for future valuations:

1. Post-Retirement Mortality: For this analysis and for recommendations, all employee classifications under NYCERS were grouped together except for HPTP, which was compared to the recommended assumptions for Police. We recommend updating the base mortality table to a System-specific mortality table developed using NYCERS’ actual experience. We also recommend using a full generational mortality assumption using projection scale MP-2014. A new table based on the results of this study and the application of MP-2014 is provided in the Appendix.
2. Salary and Overtime Assumptions: For the General group, the general wage increase portion of the salary scale has been lower than currently assumed and we believe a decrease in this assumption is appropriate. For most of the other groups, the general wage increase portion of the salary scale has been higher than currently assumed, but the merit portion has been materially flatter than currently assumed, and we have recommended an adjustment to both.

However, a new labor contract provides material increases over the next several years, including retroactive increases. Thus, it is unlikely the rate of salary increases the members experienced over the last ten years is representative of the rate of salary increases that will be provided in future years. We believe the OA is better positioned to reflect these factors in the development of the updated assumption as it best fits their model.
3. Withdrawal Assumption: The number of actual withdrawals has been consistently higher than expected by the current assumption. We have recommended a higher termination schedule that moves more than halfway to the experience. Further movement will likely be needed in the next study.
4. Disability Assumption: We have made minor recommendations as necessary by group.
5. Retirement Patterns: Beginning with the June 30, 2010 data, the OA began to include an indicator in the retiree data that identified whether the member was a reduced retirement, a retirement in the first year eligible, in the second year, or after. This indicator greatly increased the credibility and reliability of the reconciliation process, especially for reduced retirement. Consistent with national trends, members have been deferring retirement. We have made recommendations based on the trend as a whole and based on behavior at specific ages.

The cost estimates shown below are illustrative only and are based on the change in normal cost plus a 19-year amortization of the change in AAL as if all recommendations in this report were adopted. As discussed on Page II-1, there are always a range of reasonable assumptions and thus actual costs will be determined by the OA once the OA and the Board finalize the assumption changes.

## Illustrative Cost Estimates

|  | FY 14 results (June 30, 2012 lag valuation) |  |  |
| :---: | :---: | :---: | :---: |
|  | AAL (\$ Millions) | Normal Cost (\$Millions) | Employer Contribution (\$ Millions) |
| Base Results (current Assumptions) | \$66,629 | \$1,468 | \$3,040 |
| Estimated Change for changes in |  |  |  |
| Mortality Assumptions | \$2,027 | \$92 | \$282 |
| Overtime Assumptions | \$1,191 | \$59 | \$170 |
| Other pay related and demographic assumptions | -\$315 | -\$62 | -\$91 |
| Sub Total | \$69,532 | \$1,557 | \$3,401 |
| Estimated Change for $1 / 4 \%$ decrease in investment return assumption | \$1,877 | \$111 | \$239 |
| Total | \$71,409 | \$1,668 | \$3,640 |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL EXPERIENCE STUDY RESULTS OVERVIEW

| $\begin{gathered} \text { Table } \\ \text { Number } \\ \hline \end{gathered}$ | Table Type | 4-YEAR PERIOD ENDING 6/30/2013* |  | 10-YEAR PERIOD ENDING 6/30/2013* |  |  | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Average Number of Decrements per Year | Ratio of Actual to |  | Average <br> Number of <br> Decrements per <br> Year |  |
|  |  | Expected |  | Expected | Proposed |  |  |
|  | Service Retiree Mortality |  |  |  |  |  | The proposed assumption is based on actual plan experience. Future |
| 1A | Men | 93\% | 1237 | 97\% | 97\% | 1265 | mortality improvements will be projected using scale MP-2014. The |
| 1B | Women | 93\% | 1321 | 97\% | 99\% | 1336 | following NYCERS groups were combined for this study: General, |
| 1C | Men \& Women | 93\% | 2557 | 97\% | 98\% | 2601 | Transit, Sanitation, Corrections, and TBTA. |
| 1D | By Year |  |  |  |  |  |  |
|  | Disabled Retiree Mortality |  |  |  |  |  | The proposed assumption is based on actual plan experience. Future |
| 2A | Men | 93\% | 126 | 95\% | 108\% | 123 | mortality improvements will be projected using scale MP-2014. The |
| 2B | Women | 116\% | 94 | 119\% | 101\% | 88 | following NYCERS groups were combined for this study: Genera, |
| 2 C | Men \& Women | 102\% | 219 | 104\% | 105\% | 211 | Transit, Sanitation, Corrections, and TBTA. |
| 2D | By Year |  |  |  |  |  |  |
|  | Active Member Withdrawals |  |  |  |  |  | Actual experience is higher than expected. We recommend raising the |
| 3A | Men | 131\% | 1385 | 132\% | 114\% | 1393 | current assumption. |
| 3B | Women | 140\% | 2047 | 139\% | 120\% | 1994 |  |
| 3 C | Men \& Women | 136\% | 3432 | 136\% | 118\% | 3387 |  |
| 3D | By Year |  |  |  |  |  |  |
|  | Active Member Service Retirements In 1st Year of Eligibility |  |  |  |  |  | Unreduced retirements were expected to roughly double over the period. Generally, members have been delaying retirements, |
| 4A | Total | 68\% | 844 | 82\% | 83\% | 908 | consistent with national trends. Consider extending maximum |
| 4B | Elected | 76\% | 182 | 70\% | 79\% | 151 | retirement age from 70 to 75. |
| 4 C | Mandated | 66\% | 662 | 84\% | 84\% | 757 |  |
|  | In 2nd Year of Eligibility |  |  |  |  |  |  |
| 5A | Total | 68\% | 387 | 75\% | 75\% | 360 |  |
| 5B | Elected | 80\% | 63 | 75\% | 75\% | 50 |  |
| 5C | Mandated | 66\% | 325 | 75\% | 75\% | 310 |  |
|  | After 2nd Year of Eligibility |  |  |  |  |  |  |
| 6A | Total | 51\% | 1830 | 49\% | 49\% | 1414 |  |
| 6B | Elected | 81\% | 191 | 77\% | 77\% | 120 |  |
| 6C | Mandated | 49\% | 1639 | 47\% | 47\% | 1295 |  |
| 6 D | By Year |  |  |  |  |  |  |
|  | Reduced Service Retirements |  |  |  |  |  | There were more reduced retirements than expected. We recommend |
| 7A | Total | 167\% | 755 | 91\% | 67\% | 383 | raising the current assumption. |
| 7B | By Year |  |  |  |  |  |  |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL EXPERIENCE STUDY RESULTS OVERVIEW

| Table <br> Number | Table Type | 4-YEAR PERIOD ENDING 6/30/2013* |  | 10-YEAR PERIOD ENDING 6/30/2013* |  |  | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Average Number of Decrements per Year | Ratio of Actual to |  | Average <br> Number of <br> Decrements per <br> Year |  |
|  |  | Expected |  | Expected | Proposed |  |  |
| 8A | Active Member Ordinary Mortality Men | 81\% | 108 | 95\% | 108\% | 119 | Mortality was lower than expected. We recommend lowering the current rates. |
| 8B | Women | 80\% | 84 | 95\% | 106\% | 94 |  |
| 8C | Men \& Women | 80\% | 192 | 95\% | 107\% | 213 |  |
| 8D | By Year |  |  |  |  |  |  |
|  | Active Member Ordinary Disability |  |  |  |  |  | The current assumption is reasonable. |
| 9A | Men | 84\% | 170 | 88\% | 88\% | 171 |  |
| 9B | Women | 89\% | 179 | 89\% | 89\% | 167 |  |
| 9 C | Men \& Women | 86\% | 348 | 88\% | 88\% | 338 |  |
| 9 D | By Year |  |  |  |  |  |  |
|  | Active Member Accidental Disability |  |  |  |  |  | Minor assumption. Actuals appears to be trending down and may |
| 10A | Men | 73\% | 17 | 99\% | 99\% | 22 | warrant an assumption change if this trend continues. |
| 10B | Women | 86\% | 12 | 98\% | 98\% | 14 |  |
| 10 C | Men \& Women | 78\% | 29 | 99\% | 99\% | 36 |  |
| 10D | By Year |  |  |  |  |  |  |
|  | Salary Increases** | Expected | Actual | Expected | Proposed | Actual | Merit looks reasonable. Actual experience is lower than expected, |
| 11A | Total | 4.98\% | 2.03\% | 5.00\% | 4.47\% | 3.91\% | largely due to productivity component (which is trending further |
| 11B | Merit Only | 1.98\% | 1.75\% | 2.00\% | 1.72\% | 1.76\% | downward). Recommend lowering ultimate assumption by $0.25 \%$. |
|  | General Increase over Inflation | 1.50\% | -0.57\% | 0.50\% | 0.25\% | -0.23\% |  |
| 11C | By Year |  |  |  |  |  |  |
|  | Overtime Pay** | Expected | Actual | Expected | Proposed | Actual | Actual overtime has been higher than expected assumption. |
| 12A | For All Years | 4.00\% | 12.21\% | 4.00\% | 8.00\% | 12.05\% | Recommend higher assumption. |
| 12B | In Year Before Service Retirement | 4.00\% | 12.46\% | 4.00\% | 8.00\% | 12.11\% |  |
| 12C | In Year Before Disability Retirement | 4.00\% | 10.52\% | 4.00\% | 8.00\% | 9.98\% |  |
| 12D | By Year |  |  |  |  |  |  |

* Four-year and eight-year periods ending 6/30/2011 were studied for the Withdrawal and Disability Decrements.
** For Salary Increases, average annual percentage increase in salary is shown. For Overtime Pay, average annual overtime pay is expressed as a percentage of salary.


# NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT <br> EXPERIENCE STUDY RESULTS <br> OVERVIEW 

| Table <br> Number | Table Type | 4-YEAR PERIOD ENDING 6/30/2013* |  | 10-YEAR PERIOD ENDING 6/30/2013* |  |  | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Average Number of Decrements per Year | Ratio of Actual to |  | Average <br> Number of <br> Decrements per <br> Year |  |
|  |  | Expected |  | Expected | Proposed |  |  |
|  | Service Retiree Mortality |  |  |  |  |  | The proposed assumption is based on actual plan experience. Future |
| 1A | Men | 96\% | 817 | 98\% | 99\% | 828 | mortality improvements will be projected using scale MP-2014. The |
| 1B | Women | 100\% | 68 | 101\% | 103\% | 64 | following NYCERS groups were combined for this study: Genera, |
| 1 C | Men \& Women | 96\% | 884 | 99\% | 107\% | 892 | Transit, Sanitation, Corrections, and TBTA. |
| 1D | By Year |  |  |  |  |  |  |
|  | Disabled Retiree Mortality |  |  |  |  |  | The proposed assumption is based on actual plan experience. Future |
| 2A | Men | 94\% | 66 | 100\% | 113\% | 70 | mortality improvements will be projected using scale MP-2014. The |
| 2B | Women | 98\% | 12 | 89\% | 75\% | 10 | following NYCERS groups were combined for this study: General, |
| 2 C | Men \& Women | 95\% | 78 | 98\% | 107\% | 79 | Transit, Sanitation, Corrections, and TBTA. |
| 2D | By Year |  |  |  |  |  |  |
|  | Active Member Withdrawals |  |  |  |  |  | The current assumption is reasonable. |
| 3A | Men | 99\% | 287 | 114\% | 114\% | 329 |  |
| 3B | Women | 170\% | 94 | 165\% | 165\% | 92 |  |
| 3 C | Men \& Women | 110\% | 381 | 122\% | 122\% | 421 |  |
| 3D | By Year |  |  |  |  |  |  |
|  | Active Member Service Retirements |  |  |  |  |  | Actual experience has outpaced the current assumptions. Consider |
|  | In 1st Year of Eligibility |  |  |  |  |  | extending maximum retirement age from 70 to 75 . |
| 4A | Total | 53\% | 342 | 50\% | 60\% | 264 |  |
| 4B | Elected | 66\% | 206 | 55\% | 65\% | 126 |  |
| 4 C | Mandated | 40\% | 136 | 46\% | 57\% | 137 |  |
|  | In 2nd Year of Eligibility |  |  |  |  |  |  |
| 5A | Total | 55\% | 141 | 66\% | 74\% | 141 |  |
| 5B | Elected | 79\% | 74 | 88\% | 88\% | 63 |  |
| 5C | Mandated | 41\% | 67 | 55\% | 66\% | 78 |  |
|  | After 2nd Year of Eligibility |  |  |  |  |  |  |
| 6A | Total | 54\% | 557 | 59\% | 60\% | 485 |  |
| 6B | Elected | 104\% | 221 | 105\% | 105\% | 133 |  |
| 6C | Mandated | 41\% | 336 | 50\% | 57\% | 352 |  |
| 6 D | By Year |  |  |  |  |  |  |
|  | Reduced Service Retirements |  |  |  |  |  |  |
| 7A | Total | 268\% | 1 | 47\% | 35\% | 1 | Due to limited experience, we recommend using the NYCERS |
| 7B | By Year |  |  |  |  |  | General group's reduced retirement proposed assumption. |

# NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT EXPERIENCE STUDY RESULTS OVERVIEW 

| Table Number | Table Type | 4-YEAR PERIOD ENDING 6/30/2013* |  | 10-YEAR PERIOD ENDING 6/30/2013* |  |  | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Average Number of Decrements per Year | Ratio of Actual to |  | Average <br> Number of <br> Decrements per <br> Year |  |
|  |  | Expected |  | Expected | Proposed |  |  |
|  | Active Member Ordinary Mortality |  |  |  |  |  | Minor Assumption. The current assumption is reasonable. |
| 8A | Men | 107\% | 53 | 120\% | 120\% | 57 |  |
| 8B | Women | 168\% | 6 | 192\% | 192\% | 7 |  |
| 8C | Men \& Women | 112\% | 59 | 125\% | 125\% | 64 |  |
| 8D | By Year |  |  |  |  |  |  |
| 9 A | Active Member Accidental Mortality | 14\% | 1 | 11\% | 45\% | 0 | Minor Assumption. We recommend a lower assumption. |
| 9B | By Year |  |  |  |  |  |  |
|  | Active Member Ordinary Disability |  |  |  |  |  | We recommend raising Ordinary Disability rates for Women. |
| 10A | Men | 93\% | 98 | 93\% | 93\% | 94 |  |
| 10B | Women | 239\% | 40 | 215\% | 153\% | 34 |  |
| 10C | Men \& Women | 113\% | 138 | 110\% | 104\% | 128 |  |
| 10D | By Year |  |  |  |  |  |  |
|  | Active Member Accidental Disability |  |  |  |  |  | Minor Assumption. We recommend lowering Accidental Disability |
| 11A | Men | 8\% | 1 | 34\% | 69\% | 2 | rates for Men. |
| 11B | Women | 23\% | 0 | 104\% | 104\% | 1 |  |
| 11C | Men \& Women | 10\% | 1 | 45\% | 78\% | 3 |  |
| 11D | By Year |  |  |  |  |  |  |
|  | Salary Increases** | Expected | Actual | Expected | Proposed | Actual |  |
| 12A | Total | 4.19\% | 3.41\% | 4.32\% | 4.32\% | 3.90\% | Overall, experience has slightly outpaced assumption, especially when |
| 12B | Merit Only | 0.69\% | 0.70\% | 0.82\% | 0.82\% | 0.78\% | adjusted for actual versus expected inflation. |
|  | General Increase over Inflation | 1.00\% | 0.37\% | 1.00\% | 1.00\% | 0.78\% |  |
| 12 C | By Year |  |  |  |  |  |  |
|  | Overtime Pay** | Expected | Actual | Expected | Proposed | Actual |  |
| 13A | For All Years | 8.00\% | 9.21\% | 8.00\% | 8.00\% | 8.22\% | Experience has been close to the expected assumption. Members are |
| 13B | In Year Before Service Retirement | 8.00\% | 7.62\% | 8.00\% | 8.00\% | 7.01\% | working less Overtime before becoming disabled. |
| 13C | In Year Before Disability Retirement | 8.00\% | 5.24\% | 8.00\% | 8.00\% | 5.04\% |  |
| 13D | By Year |  |  |  |  |  |  |

* Four-year and eight-year periods ending 6/30/2011 were studied for the Withdrawal and Disability Decrements.
** For Salary Increases, average annual percentage increase in salary is shown. For Overtime Pay, average annual overtime pay is expressed as a percentage of salary.


## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION EXPERIENCE STUDY RESULTS OVERVIEW

| $\begin{gathered} \text { Table } \\ \text { Number } \end{gathered}$ | Table Type | 4-YEAR PERIOD ENDING 6/30/2013* |  | 10-YEAR PERIOD ENDING 6/30/2013* |  |  | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Expected | Average Number of Decrements per Year | Ratio of Actual to |  | AverageNumber ofDecrements perYear |  |
|  |  |  |  | Expected | Proposed |  |  |
| 1A $\begin{gathered}\text { Service } \\ \text { Men }\end{gathered}$ |  |  |  |  |  |  | The proposed assumption is based on actual plan experience. Future |
|  |  | 96\% | 279 | 98\% | 101\% | 284 | mortality improvements will be projected using scale MP-2014. The |
| 1B | Women | 113\% | 1 | 88\% | 93\% | 1 | following NYCERS groups were combined for this study: General, |
| 1C | Men \& Women | 96\% | 280 | 98\% | 101\% | 285 | Transit, Sanitation, Corrections, and TBTA. |
|  | By Year |  |  |  |  |  |  |
| Disabled Retiree Mortality |  |  |  |  |  |  | The proposed assumption is based on actual plan experience. Future |
| 2A | Men | 92\% | 68 | 93\% | 75\% | 68 | mortality improvements will be projected using scale MP-2014. The |
| 2 B | Women | 150\% | 0 | 181\% | 105\% | 0 | following NYCERS groups were combined for this study: General, |
| 2 C | Men \& Women | 92\% | 69 | 94\% | 75\% | 68 | Transit, Sanitation, Corrections, and TBTA. |
| 2 D | By Year |  |  |  |  |  |  |
| Active Member Withdrawals |  |  |  |  |  |  | The current assumption is reasonable. No change is recommended. |
| 3A | Men | 94\% | 44 | 112\% | 112\% | 56 |  |
| 3в | Women | 128\% | 2 | 116\% | 116\% | 2 |  |
| зс | Men \& Women | 95\% | 45 | 113\% | 113\% | 57 |  |
| 3 D | By Year |  |  |  |  |  |  |
| Active Member Service Retirements In 1st Year of Eligibility |  |  |  |  |  |  | Experience has been consistently lower than expected. In certain |
|  |  |  |  |  |  |  | places, the current assumption should be lowered to match |
| 4 A | Total | 48\% | 67 | 49\% | 58\% | 92 | experience. |
| 4B | Elected | 74\% | 48 | 49\% | 54\% | 71 |  |
| 4 C | Mandated | 25\% | 19 | 50\% | 80\% | 21 |  |
| In 2nd Year of Eligibility |  |  |  |  |  |  |  |
| 5A | Total | 97\% | 48 | 120\% | 120\% | 63 |  |
| 5B | Elected | 108\% | 42 | 114\% | 114\% | 51 |  |
| ${ }_{5 C}$ | Mandated | 58\% | 6 | 156\% | 156\% | 12 |  |
| After 2nd Year of Eligibility |  |  |  |  |  |  |  |
| 6 A | Total | 63\% | 125 | 79\% | 94\% | 131 |  |
| 6B | Elected | 71\% | 119 | 76\% | 96\% | 105 |  |
| 6 C | Mandated | 19\% | 6 | 90\% | 90\% | 26 |  |
| 6D | By Year |  |  |  |  |  |  |
|  | Reduced Service Retirements |  |  |  |  |  | Due to limited experience, we recommend using the NYCERS |
| ${ }^{78}$ | Total | 93\% | 1 | 72\% | 72\% | 1 | General group's reduced retirement proposed assumption. |
| 7в | By Year |  |  |  |  |  |  |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION EXPERIENCE STUDY RESULTS OVERVIEW



* Four-year and eight-year periods ending 6/30/2011 were studied for the Withdrawal and Disability Decrements.
** For Salary Increases, average annual percentage increase in salary is shown. For Overtime Pay, average annual overtime pay is expressed as a percentage of salary.


# NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS EXPERIENCE STUDY RESULTS OVERVIEW 

| $\begin{gathered} \text { Table } \\ \text { Number } \\ \hline \end{gathered}$ | Table Type | 4-YEAR PERIOD ENDING 6/30/2013* |  | 10-YEAR PERIOD ENDING 6/30/2013* |  |  | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Average Number of Decrements per Year | Ratio of Actual to |  | Average <br> Number of <br> Decrements per <br> Year |  |
|  |  | Expected |  | Expected | Proposed |  |  |
| 1 A | Service Retiree Mortality | 76\% | 61 | 84\% | 90\% | 58 | The proposed assumption is based on actual plan experience. Future |
| 1 B | Women | 91\% | 11 | 96\% | 99\% | 58 9 | ality improvements will be projected using scale MP-2014. The |
| 1C | Men \& Women | 78\% | 72 | 85\% | 92\% | 68 | Transit, Sanitation, Corrections, and TBTA. |
| 1D | By Year |  |  |  |  |  |  |
|  | Disabled Retiree Mortality |  |  |  |  |  | The proposed assumption is based on actual plan experience. Future |
| 2A | Men | 72\% | 18 | 76\% | 59\% | 17 | mortality improvements will be projected using scale MP-2014. The |
| 2B | Women | 70\% | 4 | 108\% | 61\% | 5 | following NYCERS groups were combined for this study: General, |
| 2 C | Men \& Women | 72\% | 22 | 81\% | 81\% | 22 | Transit, Sanitation, Corrections, and TBTA. |
| 2D | By Year |  |  |  |  |  |  |
|  | Active Member Withdrawals |  |  |  |  |  | Recent experience has been volatile, but is in line with the current |
| 3A | Men | 113\% | 56 | 121\% | 121\% | 59 | assumption. No change is recommended. |
| 3B | Women | 98\% | 41 | 115\% | 115\% | 48 |  |
| 3 C | Men \& Women | 106\% | 97 | 118\% | 118\% | 107 |  |
| 3D | By Year |  |  |  |  |  |  |
|  | Active Member Service Retirements In 1st Year of Eligibility |  |  |  |  |  | Generally, members have been delaying retirements, consistent with national trends. The current assumption reflects long-term anticpated |
| 4A | Total | 49\% | 164 | 63\% | 74\% | 257 | retirement patterns. |
| 4B | Elected | 48\% | 96 | 36\% | 42\% | 93 |  |
| 4 C | Mandated | 50\% | 68 | 107\% | 129\% | 165 |  |
|  | In 2nd Year of Eligibility |  |  |  |  |  |  |
| 5A | Total | 82\% | 68 | 146\% | 156\% | 101 |  |
| 5B | Elected | 92\% | 51 | 153\% | 154\% | 80 |  |
| 5C | Mandated | 63\% | 17 | 123\% | 165\% | 21 |  |
|  | After 2nd Year of Eligibility |  |  |  |  |  |  |
| 6A | Total | 58\% | 157 | 64\% | 88\% | 100 |  |
| 6B | Elected | 64\% | 137 | 66\% | 90\% | 81 |  |
| 6 C | Mandated | 36\% | 20 | 57\% | 80\% | 20 |  |
| 6 D | By Year |  |  |  |  |  |  |
|  | Reduced Service Retirements |  |  |  |  |  | Due to limited experience, we recommend using the NYCERS |
| 7A | Total | 0\% | 0 | 1250\% | 833\% | 0 | General group's reduced retirement proposed assumption. |
| 7B | By Year |  |  |  |  |  |  |

## NEW YORK CITY EMPLOYEES’ RETIREMENT SYSTEM - CORRECTIONS EXPERIENCE STUDY RESULTS <br> OVERVIEW

| Table <br> Number | Table Type | 4-YEAR PERIOD ENDING 6/30/2013* |  | 10-YEAR PERIOD ENDING 6/30/2013* |  |  | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Expected | Average Number of Decrements per Year | Ratio of Actual to |  | Average <br> Number of <br> Decrements per <br> Year |  |
|  |  |  |  | Expected | Proposed |  |  |
| Active Member Ordinary Mortality8A Men |  | $74 \%$$67 \%$$72 \%$ | 5 | 67\% | 67\% | 4 | Minor Assumption. Experience appears to be less than the assumptions. |
| 8B | Women |  | 2 | 80\% | 80\% | 2 |  |
| 8C | Men \& Women |  | 7 | 71\% | 71\% | 7 |  |
| 8D | By Year | 0\% | 0 | 0\% | 0\% | 0 | Minor Assumption. There were no deaths over the measured period. |
| 9A | Active Member Accidental Mortality By Year |  |  |  |  |  |  |
| 9B |  |  |  |  |  |  |  |
| 10A Active Member Ordinary Disability |  | 27\% | 4 | 46\% | 46\% | 6 | Minor Assumption. Experience has been trending below current assumption. |
|  |  |  |  |  |  |  |  |  |
| 10B | Women | 76\% | 11 | 98\% | 98\% | 16 |  |
| 10C | Men \& Women | 48\% |  | 67\% | 67\% |  |  |
| 10D | By Year |  |  |  |  |  |  |
|  | Active Member Accidental Disability |  |  |  |  |  | The proposed assumption is $115 \%$ of the current assumption for Men and $0.20 \%$ at all ages for women. |
| 11A | Men | 133\% | 28 | 127\% | 110\% | 28 |  |
| 11B | Women | 35\% | 6 | 38\% | 77\% | 6 |  |
| 11C | Men \& Women | 90\% | 34 | 89\% | 102\% | 35 |  |
| 11D | By Year |  |  |  |  |  |  |
|  | Salary Increases** | Expected | Actual | Expected | Proposed | Actual | Merit increases are lower than expected, though this is offset by greater observed productivity. |
| 12A | Total | 7.45\% | 6.61\% | 6.93\% | 7.06\% | 6.79\% |  |
| 12B | Merit Only | 3.95\% | 3.20\% | 3.43\% | 3.06\% | 2.84\% |  |
|  | General Increase over Inflation | 1.00\% | 0.84\% | 1.00\% | 1.50\% | 1.70\% |  |
| 12C | By Year |  |  |  |  |  |  |
|  | Overtime Pay** | Expected | Actual | Expected | Proposed | Actual | Experience has been close to the expected assumption. Members are working less overtime before becoming retired or disabled. |
| 13A | For All Years | 11.59\% | 15.67\% | 11.44\% | 13.00\% | 13.17\% |  |
| 13B | In Year Before Service Retirement | 14.80\% | 15.41\% | 14.37\% | 14.00\% | 12.51\% |  |
| 13C | In Year Before Disability Retirement | 12.20\% | 7.82\% | 11.86\% | 13.00\% | 6.38\% |  |
| 13D | By Year |  |  |  |  |  |  |

* Four-year and eight-year periods ending 6/30/2011 were studied for the Withdrawal and Disability Decrements.
** For Salary Increases, average annual percentage increase in salary is shown. For Overtime Pay, average annual overtime pay is expressed as a percentage of salary.


## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA <br> EXPERIENCE STUDY RESULTS OVERVIEW

| $\begin{gathered} \text { Table } \\ \text { Number } \\ \hline \end{gathered}$ | Table Type | 4-YEAR PERIOD ENDING 6/30/2013* |  | 10-YEAR PERIOD ENDING 6/30/2013* |  |  | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Expected | Average Number of Decrements per Year | Ratio of Actual to |  | Average <br> Number of <br> Decrements per <br> Year |  |
|  |  |  |  | Expected | Proposed |  |  |
| 1A Service Retiree Mortality |  |  |  |  |  |  | The proposed assumption is based on actual plan experience. Future mortality improvements will be projected using scale MP-2014. The following NYCERS groups were combined for this study: General, Transit, Sanitation, Corrections, and TBTA. |
| 1A | Men | 83\% | 21 | 94\% | 97\% | 22 |  |
| 1B | Women | 128\% | 3 | 99\% | 104\% | 2 |  |
| 1C | Men \& Women | 86\% | 23 | 94\% | 97\% | 24 |  |
| 1D | By Year |  |  |  |  |  |  |
|  | Disabled Retiree Mortality |  |  |  |  |  | The proposed assumption is based on actual plan experience. Future mortality improvements will be projected using scale MP-2014. The following NYCERS groups were combined for this study: General, Transit, Sanitation, Corrections, and TBTA. |
| 2A | Men | 108\% | 5 | 85\% | 102\% | 4 |  |
| 2B | Women | 114\% | 1 | 74\% | 61\% | 0 |  |
| 2 D | Men \& Women | 108\% | 5 | 84\% | 97\% | 4 |  |
|  | By Year |  |  |  |  |  |  |
|  | Active Member Withdrawals |  |  |  |  |  | Actual withdrawals are considerably outpacing the expectations. We recommend a higher assumption. |
| 3A | Men | 151\% | 19 | 161\% | 127\% | 21 |  |
| 3B | Women | 391\% | 13 | 301\% | 243\% | 11 |  |
| 3C | Men \& Women | 203\% | 32 | 192\% | 152\% | 32 |  |
| 3D | By Year |  |  |  |  |  |  |
|  | Active Member Service Retirements In 1st Year of Eligibility |  |  |  |  |  | Very small data set, no credibility. Due to limited experience, we recommend using the General group's reduced retirement proposed assumption. |
| 4A | Total | 116\% | 16 | 74\% | 74\% | 9 |  |
| 4B | Elected | 145\% | 9 | 74\% | 74\% | 5 |  |
| 4 C | Mandated | 91\% | 7 | 73\% | 73\% | 4 |  |
| In 2nd Year of Eligibility |  |  |  |  |  |  |  |
| 5A | Total | 74\% | 3 | 135\% | 135\% | 7 |  |
| 5B | Elected | 45\% | 1 | 126\% | 126\% | 3 |  |
| 5 C | Mandated | 84\% | 3 | 142\% | 142\% | 4 |  |
|  | After 2nd Year of Eligibility |  |  |  |  |  |  |
| 6A | Total | 80\% | 15 | 99\% | 99\% | 17 |  |
| 6B | Elected | 127\% | 6 | 151\% | 151\% | 7 |  |
| 6C | Mandated | 66\% | 9 | 77\% | 77\% | 9 |  |
| 6 D | By Year |  |  |  |  |  |  |
|  | Reduced Service Retirements |  |  |  |  |  |  |
| 7A | Total | 390\% | 14 | 406\% | 406\% | 13 |  |
| 7B | By Year |  |  |  |  |  |  |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA <br> EXPERIENCE STUDY RESULTS OVERVIEW



NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - HP TP
EXPERIENCE STUDY RESULTS OVERVIEW

| $\begin{gathered} \text { Table } \\ \text { Number } \\ \hline \end{gathered}$ | Table Type | 4-YEAR PERIod Ending 6/30/2013 |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  | $\begin{gathered} \text { GRS' } \\ \text { Ideal A/E } \\ \text { Range } \\ \hline \end{gathered}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Expected | $\begin{gathered} \text { Average Number of } \\ \text { Decrements per Year } \end{gathered}$ | Ratio of Actual to |  | $\begin{aligned} & \text { Average } \\ & \text { Number of } \end{aligned}$ |  |  |
|  |  |  |  | Expected | Proposed | Year |  |  |
|  | Service Retiree Mortality |  |  |  |  |  | 98-103\% | The proposed assumption is equivalent to the proposed assumption |
| 1A | Men | 102\% | 61 | 101\% | 106\% | 56 |  | for the Police System. |
| 18 | Women | 283\% | 1 | 208\% | 124\% | 0 |  |  |
| 1 C | Men \& Women | 102\% | 61 | 102\% | 106\% | 56 |  |  |
| 1 D | By Year |  |  |  |  |  |  |  |
|  | Disabled Retiree Mortality |  |  |  |  |  | 98-103\% | The proposed assumption is equivalent to the proposed assumption |
| 2 A | Men | 94\% | 28 | 95\% | 100\% | 26 |  | for the Police System. |
| 2B | Women | 0\% | 0 | 56\% | 33\% | 0 |  |  |
| ${ }^{2}$ | Men \& Women | 93\% | 28 | 95\% | 99\% | 26 |  |  |
| 2 D | By Year |  |  |  |  |  |  |  |

New York City Retirement Systems
Actuarial Experience Investigation
For the Four-Year and Ten-Year Periods Ending June 30, 2013

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL WITHDRAWAL ASSUMPTIONS AND EXPERIENCE FOR THE EIGHT-YEAR PERIOD ENDING 6/30/2011



NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL RETIREMENT ASSUMPTIONS AND EXPERIENCE FOR THE FOUR-YEAR PERIOD ENDING 6/30/2013


GRS’ APPROACH TO ASSIGNING STATUSES FOR NYCERS ACTIVE TABLES FROM 6/30/2010 THROUGH 6/30/2013

| GRS Status Code | Meaning | Associated Decrement | MSTATP* | MSTATC* |
| :---: | :---: | :---: | :---: | :---: |
| A | Active |  | 10,20 , or 60 | 10 |
| B | Active-Inactive, Adjusted | Withdrawal |  | 20 |
| B1 | Beneficiary of Retiree | Beneficiary |  |  |
| B2 | Beneficiary of Ordinary Death | Beneficiary |  |  |
| B3 | Beneficiary of Accidental Death | Beneficiary |  |  |
| B4 | Beneficiary of Ordinary Disability | Beneficiary |  |  |
| B5 | Beneficiary of Accidental Disability | Beneficiary |  |  |
| C | Active-Inactive, Adjusted | Withdrawal |  | 20 |
| D | Deceased | Ordinary Mortality | 10, 20, or 60 | 60 |
| D1 | Ordinary Death w/o Ben | Ordinary Mortality | not 81 or 82 | 60 |
| D2 | Accidental Death w/o Ben | Accidental Mortality |  | 61 |
| F | Active-Inactive | Withdrawal |  | 20 |
| I | Ordinary Disability | Ordinary Disability |  | 70 |
| J | Accidental Disability | Accidental Disability |  | 71 |
| L | Lump Sum | Withdrawal |  |  |
| P | Duplicate |  |  |  |
| R | Service Retirement Year 1 | Retirement |  | 90 |
| R | Service Retirement Year 2 | Retirement |  | 91 |
| R | Service Retirement Year Ultimate | Retirement |  | 92 |
| R | Reduced Service Retirement | Retirement |  | 93 |
| S | Retiree from Vested | Retirement |  |  |
| T | Terminated Non-Vested | Withdrawal |  | 80 |
| U | 5-Year Out | Withdrawal |  |  |
| V | Deferred Vested | Withdrawal |  | 81 or 82 |
| WI | Missing Ordinary Disability | Ordinary Disability |  |  |
| WJ | Missing Accidental Disability | Accidental Disability |  |  |
| WR | Missing Services Retirement | Retirement |  |  |
| WS | Missing Retirement from Vested | Retirement |  |  |
| Z | Refunded | Withdrawal |  |  |

GRS' APPROACH TO ASSIGNING STATUSES FOR NYCERS PENSIONER TABLES FROM 6/30/2010 THROUGH 6/30/2013

| GRS Status Code | Meaning | Associated Decrement | MSTATP* | MSTATC* | RetCause** | PaycePen |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | Active |  |  |  |  |  |
| B | Active-Inactive, Adjusted | Withdrawal |  |  |  |  |
| B1 | Beneficiary of Retiree | Beneficiary |  |  | 0 or 3 | not 0,1 or 1 |
| B2 | Beneficiary of Ordinary Death | Beneficiary |  |  | 7 | not 0,1 or 1 |
| B3 | Beneficiary of Accidental Death | Beneficiary |  |  | 4 | not 0,1 or 1 |
| B4 | Beneficiary of Ordinary Disability | Beneficiary |  |  | 2 | not 0,1 or 1 |
| B5 | Beneficiary of Accidental Disability | Beneficiary |  |  | 1 | not 0,1 or 1 |
| C | Active-Inactive, Adjusted | Withdrawal |  |  |  |  |
| D | Deceased | Mortality* |  | 60 |  |  |
| D1 | Ordinary Death w/o Ben | Mortality* |  |  |  |  |
| D2 | Accidental Death w/o Ben | Mortality* |  |  |  |  |
| F | Active-Inactive | Withdrawal |  |  |  |  |
| I | Ordinary Disability | Ordinary Disability |  |  | 2 | 0,1 , or 6 |
| J | Accidental Disability | Accidental Disability |  |  | 1 or 6 | 0,1 , or 6 |
| L | Lump Sum | Withdrawal |  |  |  |  |
| P | Duplicate |  |  |  |  |  |
| R | Service Retiree | Retirement |  |  | 3 | 0,1 , or 6 |
| S | Retiree from Vested | Retirement |  |  | 0 | 0,1 , or 6 |
| T | Terminated Non-Vested | Withdrawal |  | 80 |  |  |
| U | 5-Year Out | Withdrawal |  |  |  |  |
| V | Deferred Vested | Withdrawal | 70 | 10 | 0 |  |
| WI | Missing Ordinary Disability | Ordinary Disability | 70 | 10 | 2 | 0,1, or 6 |
| WJ | Missing Accidental Disability | Accidental Disability | 70 | 10 | 1 or 6 | 0,1 , or 6 |
| WR | Missing Services Retirement | Retirement | 70 | 10 | 3 | 0,1 , or 6 |
| WS | Missing Retirement from Vested | Retirement |  |  |  |  |
| Z | Refunded | Withdrawal |  |  |  |  |

* The mortality decrements are determined by the member's status in the previous year. For example, a disability retiree's mortality decrement would be Disabled Mortality.
** For all Tier 6 disabilities, indicated by RetCause equal to 6, members were classified as Ordinary Disabilities.

New York City Retirement Systems
Actuarial Experience Investigation
For the Four-Year and Ten-Year Periods Ending June 30, 2013
Status Changes Due to Maturation

| Status | Fiscal Year Ended June 30, |  |  |  |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |  |
| No Status | -1,006 | -1,430 | -2,023 | -2,085 | -2,196 | -2,288 | -2,392 | -40,967 | -46,016 | -50,936 | -55,200 | -206,539 |
| A | -12 | -2 | -1 | -2 | 0 | -2 | -2 | -63 | -60 | -58 | -53 | -255 |
| B | 315 | 321 | 333 | 684 | 540 | 789 | 2,390 | 2,681 | 2,577 | 1,897 | 0 | 12,527 |
| B1 | -13,117 | -13,031 | -12,883 | -12,742 | -12,463 | -12,369 | -12,287 | -11,472 | -11,331 | -11,308 | -11,175 | -134,178 |
| B2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| B3 | -103 | -103 | -103 | -102 | -101 | -99 | -101 | -1,572 | -1,652 | -1,613 | -2,241 | -7,790 |
| B4 | -1,406 | -1,502 | -1,553 | -1,602 | -1,638 | -1,670 | -1,687 | -996 | -984 | -961 | -934 | -14,933 |
| B5 | -123 | -127 | -127 | -134 | -133 | -138 | -138 | -174 | -175 | -195 | -197 | -1,661 |
| C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3,176 | 8,860 | 12,036 |
| D | 17,236 | 17,586 | 17,575 | 17,878 | 18,103 | 18,669 | 19,050 | 55,810 | 60,809 | 66,012 | 70,236 | 378,964 |
| D1 | -282 | -298 | -1 | -17 | -24 | -20 | -29 | -322 | -96 | -93 | -15 | -1,197 |
| D2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -1 |
| F | -391 | -370 | -383 | -885 | -951 | -1,531 | -4,369 | -4,770 | -4,763 | -6,703 | -8,878 | -33,994 |
| I | 52 | 73 | 85 | 68 | 97 | 171 | 419 | 296 | 267 | 255 | -14 | 1,769 |
| J | 121 | 113 | 117 | 121 | 129 | 137 | 168 | 158 | 172 | 33 | -4 | 1,265 |
| L | 0 | 0 | 0 | -260 | -496 | -920 | -1,122 | 0 | 0 | 0 | 0 | -2,798 |
| P | -9 | -9 | -9 | -9 | -9 | -9 | -9 | 0 | 0 | 0 | 0 | -63 |
| R | -189 | -203 | -164 | -193 | -231 | -259 | -315 | -135 | -134 | -303 | -133 | -2,259 |
| S | -3 | -4 | -3 | -3 | -4 | -4 | -4 | -6 | -8 | -19 | -14 | -72 |
| T | -275 | -238 | -13 | -3 | -4 | -18 | -29 | -75 | -330 | -442 | -192 | -1,619 |
| U | -790 | -744 | -789 | -828 | -883 | -938 | -992 | 0 | 0 | 0 | 0 | -5,964 |
| V | 6 | -13 | -14 | 150 | 321 | 549 | 1,503 | 1,610 | 1,727 | 1,264 | -44 | 7,059 |
| WI | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -3 | -2 | -6 | 0 | -11 |
| WJ | 0 | 0 | -2 | -2 | -2 | -2 | -2 | 0 | 0 | 0 | 0 | -10 |
| WR | -3 | -3 | -8 | -3 | -3 | -3 | -4 | 0 | -1 | 0 | -1 | -29 |
| WS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y | -21 | -16 | -34 | -31 | -52 | -45 | -48 | 0 | 0 | 0 | 0 | -247 |
| Z | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total |  |  |  |  |  |  |  |  |  |  |  | 0 |

New York City Retirement Systems
Actuarial Experience Investigation
For the Four-Year and Ten-Year Periods Ending June 30, 2013
Status Counts after Maturation

| Status | Fiscal Year Ended June 30, |  |  |  |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |  |
| No Status | 118,062 | 111,986 | 107,449 | 94,826 | 82,379 | 69,630 | 58,599 | 86,726 | 83,692 | 73,224 | 65,198 | 951,771 |
| A | 177,013 | 176,709 | 179,086 | 181,304 | 182,751 | 185,497 | 186,209 | 184,919 | 181,961 | 187,056 | 185,918 | 2,008,423 |
| B | 315 | 321 | 333 | 684 | 540 | 789 | 2,390 | 2,681 | 2,577 | 1,897 | 0 | 12,527 |
| B1 | 31 | 51 | 65 | 218 | 344 | 304 | 189 | 5 | 3 | 3 | 7 | 1,220 |
| B2 | 0 | 0 | 0 | 10 | 10 | 12 | 12 | 0 | 0 | 0 | 0 | 44 |
| B3 | 6 | 7 | 5 | 5 | 4 | 4 | 3 | 1 | 1 | 1 | 171 | 208 |
| B4 | 12 | 11 | 2 | 9 | 14 | 7 | 3 | 0 | 0 | 0 | 0 | 58 |
| B5 | 2 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 12 | 18 |
| C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3,176 | 8,860 | 12,036 |
| D | 26,268 | 31,440 | 36,052 | 40,581 | 45,717 | 50,723 | 55,516 | 60,423 | 65,447 | 69,958 | 74,547 | 556,672 |
| D1 | 415 | 338 | 472 | 773 | 905 | 1,054 | 1,568 | 111 | 31 | 85 | 90 | 5,842 |
| D2 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 2 | 1 | 0 | 1 | 8 |
| F | 2,323 | 2,482 | 2,607 | 22,622 | 23,586 | 19,674 | 17,110 | 14,562 | 14,206 | 9,650 | 7,604 | 136,426 |
| I | 8,207 | 8,483 | 8,528 | 8,654 | 8,796 | 8,973 | 9,145 | 9,282 | 9,510 | 9,662 | 9,585 | 98,825 |
| J | 4,250 | 4,294 | 4,300 | 4,368 | 4,398 | 4,438 | 4,447 | 4,384 | 4,400 | 4,412 | 4,366 | 48,057 |
| L | 0 | 0 | 0 | 47 | 353 | 220 | 279 | 0 | 0 | 0 | 0 | 899 |
| P | 15 | 12 | 10 | 10 | 10 | 10 | 10 | 0 | 0 | 0 | 0 | 77 |
| R | 99,726 | 100,241 | 98,927 | 99,513 | 99,809 | 100,740 | 100,404 | 100,809 | 103,397 | 105,123 | 106,266 | 1,114,955 |
| S | 1,370 | 1,375 | 1,319 | 1,359 | 1,408 | 1,356 | 1,305 | 2,646 | 2,883 | 3,292 | 3,701 | 22,014 |
| T | 27,511 | 28,491 | 27,330 | 10,946 | 13,305 | 21,261 | 26,949 | 6,061 | 4,377 | 5,470 | 6,771 | 178,472 |
| U | 7,738 | 6,567 | 6,159 | 6,116 | 6,059 | 6,000 | 5,940 | 0 | 0 | 0 | 0 | 44,579 |
| V | 8,227 | 8,504 | 8,953 | 9,442 | 9,934 | 9,694 | 10,357 | 10,584 | 10,707 | 10,181 | 10,089 | 106,672 |
| WI | 2 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 6 | 12 |
| WJ | 2 | 0 | 3 | 3 | 3 | 3 | 3 | 0 | 0 | 1 | 1 | 19 |
| WR | 34 | 15 | 77 | 80 | 77 | 80 | 77 | 2 | 6 | 8 | 6 | 462 |
| WS | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Y | 1,619 | 1,837 | 1,492 | 1,627 | 2,794 | 2,728 | 2,683 | 0 | 0 | 0 | 0 | 14,780 |
| Z | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total |  |  |  |  |  |  |  |  |  |  |  | 5,315,078 |

## SECTION V <br> SUMMARY RESULTS BY SYSTEM: TRS

## Findings

The results of the four-year and ten-year experience studies are shown in Appendix VII. We have quantified the differences between actual experience and current actuarial assumptions as well as provided illustrative proposed assumptions we believe would be appropriate and reasonable. The tables on the page following our summary of recommendations provide a summary of the reconciliation in comparison to the current assumptions.

The following business rules were applied to the TRS data. A general description of each rule may be found at the beginning of Section V.

## Business Rules

| Rule \# | Rule Name |
| :---: | :--- |
| 1 | Death Reclassification |
| 2 | Accidental Disability Reclassification |
| 3 | Ordinary Disability Reclassification |
| 4 | Status Continuity |
| 5 | Active-Inactive Reclassification \#1 |
| 6 | Active-Inactive Reclassification \#2 |
| 7 | Service Retirement Adjustment |
| 8 | Eligibility Adjustment |

Based on our analysis of TRS, GRS recommends consideration of the following changes for future valuations:

1. Post-Retirement Mortality: We recommend updating the base mortality table to a System-specific mortality table developed using TRS' actual experience. We also recommend using a full generational mortality assumption using projection scale MP-2014. A new table based on the results of this study and the application of MP-2014 is provided in the Appendix.
2. Salary and Overtime Assumptions: Over the shorter and longer observation periods, the across-the-board increases have been much lower than the current assumption, and in fact, have been in pace with the increase in inflation. Based on the historical data alone, a recommendation could be made to lower the general wage increase portion of the salary scale.

However, a new labor contract provides material increases over the next several years, including retroactive increases. Thus, it is unlikely the rate of salary increases the members experienced over the last ten years is representative of the rate of salary increases that will be
provided in future years. We believe the OA is better positioned to reflect these factors in the development of the updated assumption as it best fits their model. For these reasons, we do not have a proposed assumption that is different than the current general wage increase assumption.

The merit portion of the scale has had a very close fit between the assumption and the expectation. We are also not recommending a change to this component of the compensation assumption.

While members of TRS are not eligible for overtime, there are other sources of additional pensionable earnings that could be increased to cause a "spike" at the end of the member's career. We recommend additional data be collected in the next experience study to attempt to capture any such pattern of increase at the end of the career.
3. Withdrawal Assumption: The number of actual withdrawals has been consistently higher than expected by the current assumption. We have recommended a higher termination schedule that moves more than halfway to the experience. Further movement will likely be needed in the next study.
4. Disability Assumption: Experience indicates the OA should substantially increase the rates of disability for both ordinary and accidental.
5. Retirement Patterns: Beginning with the June 30, 2010 data, the OA began to include an indicator in the retiree data that identified whether the member was a reduced retirement, a retirement in the first year eligible, in the second year, or after. This indicator greatly increased the credibility and reliability of the reconciliation process. As such, we have given more weight to the 4 -year period than the 10 -year analysis. Consistent with national trends, members have been deferring retirement. We have made recommendations based on the trend as a whole and based on behavior at specific ages.

The cost estimates shown below are illustrative only and are based on the change in normal cost plus a 19-year amortization of the change in AAL as if all recommendations in this report were adopted. As discussed on Page II-1, there are always a range of reasonable assumptions and thus actual costs will be determined by the OA once the OA and the Board finalize the assumption changes.

## Illustrative Cost Estimates

$\left.$|  | FY 14 results (June 30, 2012 lag valuation) |  |
| :--- | :---: | :---: | :---: |
| Normal Cost |  |  |
| Employer Contribution |  |  |
| (\$Millions) |  |  |$\quad$| (\$ Millions) |
| :---: | \right\rvert\, | AAL (\$ Millions) |
| :--- |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK <br> EXPERIENCE STUDY RESULTS OVERVIEW

| $\begin{gathered} \text { Table } \\ \text { Number } \end{gathered}$ | Table Type | 4-YEAR PERIOD ENDING 6/30/2013* |  | 10-YEAR PERIOd ENDING 6/30/2013* |  |  | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Average Number of Decrements per Year | Ratio of Actual to |  | $\substack{\text { Average } \\ \text { Number of } \\ \text { Decrements per } \\ \text { Year }}$ |  |
|  |  | Expected |  | Expected | Proposed |  |  |
|  | Service Retiree Mortality |  |  |  |  |  | The proposed assumption is a based on actual plan experience. |
| 1A | Men | 82\% | 532 | 84\% | 98\% | 503 | Future mortality improvements will be projected using scale MP- |
| 1B | Women | 93\% | 1044 | 99\% | 101\% | 1037 | 2014. |
| 1c | By Year |  |  |  |  |  |  |
|  | Disabled Retiree Mortality |  |  |  |  |  | The proposed assumption is a based on actual plan experience. |
| 2A | Men | 76\% | 20 | 91\% | 92\% | 25 | Future mortality improvements will be projected using scale MP- |
| 2 B | Women | 106\% | 68 | 105\% | 96\% | 68 | 2014. |
| 2 C | By Year |  |  |  |  |  |  |
| 3 A3 B | Active Member Withrrawals | 119\% | 4223 | 126\% | 112\% | 4537 | Actual withdrawal experience appears to be higher than expected. |
|  | By Year |  |  |  |  |  | The proposed assumption is based on actual experience. |
|  | Active Member Service Retirements |  |  |  |  |  | Generally, members have been delaying retirements, consistent with |
|  | In 1st Year of Eligibility |  |  |  |  |  | national trends. Consider extending maximum retirement age from 70 |
|  | Total |  |  |  |  |  | to 75. |
| 4 A | Men | 67\% | 127 | 100\% | 86\% | 167 |  |
| 4B | Women | 60\% | 398 | 80\% | 68\% | 451 |  |
|  | Elected |  |  |  |  |  |  |
| 4 C | Men | 92\% | 62 | 70\% | 66\% | 26 |  |
| 4D | Women | 84\% | 218 | 63\% | 65\% | 88 |  |
|  | Mandated |  |  |  |  |  |  |
| 4 E | Men | 54\% | 65 | 109\% | 91\% | 141 |  |
| 4 F | Women | 44\% | 180 | 86\% | 69\% | 363 |  |
|  | In 2nd Year of Eligibility |  |  |  |  |  |  |
|  | Total |  |  |  |  |  |  |
| 5A | Men | 134\% | 132 | 149\% | 84\% | 127 |  |
| 5B | Women | 118\% | 386 | 134\% | 74\% | 361 |  |
|  | Elected |  |  |  |  |  |  |
| ${ }_{50}$ | Men | 124\% | 41 | 101\% | 96\% | 17 |  |
| 5D | Women | 114\% | 145 | 92\% | 88\% | 59 |  |
|  | Mandated |  |  |  |  |  |  |
| 5 E | Men | 139\% | 92 | 161\% | 83\% | 110 |  |
| 5 F | Women | 120\% | 241 | 147\% | 71\% | 302 |  |

# TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK <br> EXPERIENCE STUDY RESULTS OVERVIEW 



* Four-year and eight-year periods ending 6/30/2011 were studied for the Withdrawal and Disability Decrements.
** For Salary Increases, average annual percentage increase in salary is shown.

New York City Retirement Systems
Actuarial Experience Investigation
For the Four-Year and Ten-Year Periods Ending June 30, 2013

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK ORDINARY DISABILITY ASSUMPTIONS AND EXPERIENCE FOR THE EIGHT-YEAR PERIOD ENDING 6/30/2011


TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK ACCIDENTAL DISABILITY ASSUMPTIONS AND EXPERIENCE FOR THE EIGHT-YEAR PERIOD ENDING 6/30/2011


GRS’ APPROACH TO ASSIGNING STATUSES FOR TRS ACTIVE TABLES FROM 6/30/2010 THROUGH 6/30/2013

| GRS Status Code | Meaning | Associated Decrement | MSTATP* | MSTATC* |
| :---: | :---: | :---: | :---: | :---: |
| A | Active |  |  | 10 |
| B | Active-Inactive, Adjusted | Withdrawal |  | 20 |
| B1 | Beneficiary of Retiree | Beneficiary |  |  |
| B2 | Beneficiary of Ordinary Death | Beneficiary |  |  |
| B3 | Beneficiary of Accidental Death | Beneficiary |  |  |
| B4 | Beneficiary of Ordinary Disability | Beneficiary |  |  |
| B5 | Beneficiary of Accidental Disability | Beneficiary |  |  |
| C | Active-Inactive, Adjusted | Withdrawal |  | 20 |
| D | Deceased | Ordinary Mortality |  |  |
| D1 | Ordinary Death w/o Ben | Ordinary Mortality |  | 60 |
| D2 | Accidental Death w/o Ben | Accidental Mortality |  | 61 |
| F | Active-Inactive | Withdrawal |  | 20 |
| I | Ordinary Disability | Ordinary Disability |  | 70 |
| J | Accidental Disability | Accidental Disability |  | 71 |
| L | Lump Sum | Withdrawal |  |  |
| P | Duplicate |  |  |  |
| R | Service Retirement Year 1 | Retirement |  | 90 |
| R | Service Retirement Year 2 | Retirement |  | 91 |
| R | Service Retirement Year Ultimate | Retirement |  | 92 |
| R | Reduced Service Retirement | Retirement |  | 93 |
| S | Retiree from Vested | Retirement |  |  |
| T | Terminated Non-Vested | Withdrawal |  | 80 |
| U | 5-Year Out | Withdrawal |  |  |
| V | Deferred Vested | Withdrawal |  | 81 |
| WI | Missing Ordinary Disability | Ordinary Disability |  |  |
| WJ | Missing Accidental Disability | Accidental Disability |  |  |
| WR | Missing Services Retirement | Retirement |  |  |
| WS | Missing Retirement from Vested | Retirement |  |  |
| Z | Refunded | Withdrawal |  |  |

GRS' APPROACH TO ASSIGNING STATUSES FOR TRS PENSIONER TABLES FROM 6/30/2010 THROUGH 6/30/2013

| GRS Status Code | Meaning | Associated Decrement | MSTATP* | MSTATC* | RetCause** | PayeePen |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | Active |  |  |  |  |  |
| B | Active-Inactive, Adjusted | Withdrawal |  |  |  |  |
| B1 | Beneficiary of Retiree | Beneficiary |  |  | 0 or 3 | not 0 or 1 |
| B2 | Beneficiary of Ordinary Death | Beneficiary |  |  | 7 | not 0 or 1 |
| B3 | Beneficiary of Accidental Death | Beneficiary |  |  | 4 | not 0 or 1 |
| B4 | Beneficiary of Ordinary Disability | Beneficiary |  |  | 2 | not 0 or 1 |
| B5 | Beneficiary of Accidental Disability | Beneficiary |  |  | 1 | not 0 or 1 |
| C | Active-Inactive, Adjusted | Withdrawal |  |  |  |  |
| D | Deceased | Mortality* |  | 60 |  |  |
| D1 | Ordinary Death w/o Ben | Mortality* |  |  |  |  |
| D2 | Accidental Death w/o Ben | Mortality* |  |  |  |  |
| F | Active-Inactive | Withdrawal |  |  |  |  |
| I | Ordinary Disability | Ordinary Disability |  |  | 2 | 0 or 1 |
| J | Accidental Disability | Accidental Disability |  |  | 1 | 0 or 1 |
| L | Lump Sum | Withdrawal |  |  |  |  |
| P | Duplicate |  |  |  |  |  |
| R | Service Retiree | Retirement |  |  | 3 | 0 or 1 |
| S | Retiree from Vested | Retirement |  |  | 0 | 0 or 1 |
| T | Terminated Non-Vested | Withdrawal |  | 80 |  |  |
| U | 5-Year Out | Withdrawal |  |  |  |  |
| V | Deferred Vested | Withdrawal | 70 | 10 | 0 |  |
| WI | Missing Ordinary Disability | Ordinary Disability | 70 | 10 | 2 | 0 or 1 |
| WJ | Missing Accidental Disability | Accidental Disability | 70 | 10 | 1 | 0 or 1 |
| WR | Missing Services Retirement | Retirement | 70 | 10 | 3 | 0 or 1 |
| WS | Missing Retirement from Vested | Retirement |  |  |  |  |
| Z | Refunded | Withdrawal |  |  |  |  |

* The mortality decrements are determined by the member's status in the previous year. For example, a disability retiree's mortality decrement would be Disabled Mortality.
** For all Tier 6 disabilities, indicated by RetCause equal to 6, members were classified as Ordinary Disabilities.

New York City Retirement Systems
Actuarial Experience Investigation
For the Four-Year and Ten-Year Periods Ending June 30, 2013
Status Changes Due to Maturation

| Status | Fiscal Year Ended June 30, |  |  |  |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |  |
| No Status | -2,446 | -2,668 | -2,949 | -3,050 | -3,134 | -3,248 | -3,362 | -31,138 | -32,542 | -34,368 | -36,127 | -155,032 |
| A | -41 | -38 | -3 | -2 | -3 | -4 | 0 | -1 | -3 | 0 | 0 | -95 |
| B | 124 | 122 | 172 | 420 | 755 | 1,937 | 1,835 | 1,577 | 1,332 | 970 | 0 | 9,244 |
| B1 | -2,698 | -2,794 | -2,894 | -2,881 | -3,000 | -3,111 | -3,189 | -2,920 | -2,933 | -2,991 | -3,060 | -32,471 |
| B2 |  |  |  |  |  |  |  |  |  |  |  | 0 |
| B3 |  |  |  |  |  |  |  | -53 | -451 | -505 | -520 | -1,529 |
| B4 | -279 | -283 | -298 | -308 | -311 | -320 | -317 | -241 | -234 | -229 | -221 | -3,041 |
| B5 | -9 | -10 | -10 | -10 | -11 | -9 | -12 | -9 | -33 | -27 | -39 | -179 |
| C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2,337 | 4,986 | 7,323 |
| D | 5,935 | 6,262 | 6,649 | 6,804 | 7,013 | 7,771 | 8,287 | 35,125 | 36,664 | 38,729 | 40,232 | 199,471 |
| D1 | -6 | -8 | -25 | -105 | -210 | -319 | -452 | -98 | -97 | -53 | 0 | -1,373 |
| D2 |  |  |  |  |  |  |  |  |  |  |  | 0 |
| F | -181 | -174 | -218 | -652 | -1,135 | -2,533 | -2,934 | -2,782 | -2,796 | -4,054 | -4,986 | -22,445 |
| I | 18 | 21 | 60 | 29 | 92 | 116 | 175 | 140 | 128 | 73 | -2 | 850 |
| J | 4 | 5 | 13 | 6 | 7 | 14 | 49 | 57 | 44 | 11 | 0 | 210 |
| L |  |  |  |  |  | -295 | -501 |  |  |  |  | -796 |
| P | -26 | -30 | -48 | -7 | -7 | -7 | -7 |  |  |  |  | -132 |
| R | -199 | -204 | -176 | -251 | -128 | -250 | -224 | -235 | -241 | -173 | -34 | -2,115 |
| S | -3 | -5 | -8 | -2 | -7 | -7 | -5 | -5 | -8 | -2 | -1 | -53 |
| T | -138 | -97 | -116 | -117 | -198 | -209 | -270 | -435 | -110 | -367 | -227 | -2,284 |
| U | -16 | -9 | -10 | -2 | -2 | -2 | -2 |  |  |  |  | -43 |
| V | -35 | -73 | -111 | 145 | 296 | 493 | 946 | 1,030 | 1,307 | 649 | -1 | 4,646 |
| WI | -2 | -8 | -19 | -13 | -13 | -13 | -13 | -8 | -20 |  |  | -109 |
| WJ |  |  |  |  |  |  |  | -4 | -7 |  | 0 | -11 |
| WR | -2 | -9 | -9 | -3 | -3 | -3 | -3 | 0 | 0 | 0 | 0 | -32 |
| WS |  |  |  |  |  |  |  |  |  |  |  | 0 |
| Y | 0 | 0 | 0 | -1 | -1 | -1 | -1 |  |  |  |  | -4 |
| Z |  |  |  |  |  |  |  |  | 0 |  |  | 0 |
| Total |  |  |  |  |  |  |  |  |  |  |  | 0 |

New York City Retirement Systems
Actuarial Experience Investigation
For the Four-Year and Ten-Year Periods Ending June 30, 2013
Status Counts after Maturation

| Status | Fiscal Year Ended June 30, |  |  |  |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |  |
| No Status | 111,144 | 97,976 | 89,518 | 78,225 | 69,023 | 58,070 | 50,663 | 70,487 | 65,865 | 58,743 | 54,406 | 804,120 |
| A | 99,244 | 106,755 | 107,243 | 111,363 | 110,631 | 112,387 | 113,056 | 111,529 | 109,627 | 112,460 | 112,481 | 1,206,776 |
| B | 124 | 122 | 172 | 420 | 755 | 1,937 | 1,835 | 1,577 | 1,332 | 970 | 0 | 9,244 |
| B1 | 116 | 115 | 116 | 114 | 105 | 95 | 87 | 59 | 57 | 60 | 59 | 983 |
| B2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| B3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 4 | 10 | 19 |
| B4 | 16 | 16 | 16 | 16 | 16 | 15 | 14 | 16 | 14 | 12 | 12 | 163 |
| B5 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 17 |
| C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2,337 | 4,986 | 7,323 |
| D | 23,298 | 25,170 | 26,985 | 28,893 | 31,372 | 33,248 | 35,117 | 36,236 | 38,196 | 40,017 | 41,670 | 360,202 |
| D1 | 8 | 14 | 37 | 74 | 99 | 117 | 119 | 10 | 10 | 65 | 141 | 694 |
| D2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| F | 451 | 544 | 737 | 4,424 | 4,226 | 4,174 | 5,645 | 8,021 | 8,142 | 5,635 | 1,697 | 43,696 |
| I | 1,842 | 1,896 | 2,013 | 2,030 | 2,097 | 2,141 | 2,154 | 2,203 | 2,261 | 2,315 | 2,297 | 23,249 |
| J | 464 | 485 | 525 | 543 | 588 | 608 | 641 | 672 | 707 | 721 | 711 | 6,665 |
| L | 0 | 0 | 0 | 0 | 0 | 380 | 826 | 0 | 0 | 0 | 0 | 1,206 |
| P | 557 | 367 | 366 | 3 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 1,302 |
| R | 50,173 | 54,395 | 56,548 | 58,373 | 59,236 | 60,351 | 61,259 | 62,316 | 63,610 | 65,993 | 67,440 | 659,694 |
| S | 2,132 | 2,351 | 2,493 | 2,519 | 2,552 | 2,509 | 2,481 | 3,082 | 3,275 | 3,301 | 3,489 | 30,184 |
| T | 9,422 | 8,917 | 12,030 | 11,196 | 17,326 | 21,195 | 22,957 | 560 | 2,608 | 2,880 | 5,752 | 114,843 |
| U | 347 | 277 | 220 | 148 | 148 | 146 | 146 | 0 | 0 | 0 | 0 | 1,432 |
| V | 5,618 | 5,967 | 6,363 | 7,072 | 7,245 | 8,052 | 8,427 | 9,267 | 10,308 | 10,528 | 10,891 | 89,738 |
| WI | 3 | 2 | 3 | 2 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 14 |
| WJ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| WR | 366 | 143 | 176 | 175 | 173 | 170 | 169 | 24 | 41 | 18 | 16 | 1,471 |
| WS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y | 733 | 546 | 497 | 468 | 461 | 459 | 459 | 0 | 0 | 0 | 0 | 3,623 |
| Z | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Total |  |  |  |  |  |  |  |  |  |  |  | 3,366,660 |

SECTION V<br>SUMMARY RESULTS BY SYSTEM: BERS

## Findings

The results of the four-year and ten-year experience studies are shown in Appendix VIII. We have quantified the differences between actual experience and current actuarial assumptions as well as provided illustrative proposed assumptions we believe would be appropriate and reasonable. The tables on the page following our summary of recommendations provide a summary of the reconciliation in comparison to the current assumptions.

The following business rules were applied to the BERS data. A general description of each rule may be found at the beginning of Section V.

## Business Rules

| Rule \# | Rule Name |
| :---: | :--- |
| 1 | Death Reclassification |
| 2 | Accidental Disability Reclassification |
| 3 | Ordinary Disability Reclassification |
| 4 | Status Continuity |
| 5 | Active-Inactive Reclassification \#1 |
| 6 | Active-Inactive Reclassification \#2 |
| 7 | Service Retirement Adjustment |
| 8 | Eligibility Adjustment |

Based on our analysis of BERS, GRS recommends consideration of the following changes for future valuations:

1. Post-Retirement Mortality: Historically, based on the size of the group, members of BERS were valued using the same assumptions as NYCERS. Based on consistent data from previous and this experience studies, we are recommending a change to use the same assumptions used for TRS to be used for BERS.
2. Salary Assumptions: Over the shorter and longer observation periods, the across the board compensation increases have been much lower than the current assumption, and in fact, have been in step with the rate of increase in inflation. Based on the historical data alone, a recommendation could be made to lower the general wage increase portion of the salary scale.

However, a new labor contract provides material increases over the next several years, including retroactive increases. Thus, it is unlikely the rate of salary increases the members experienced over the last ten years is representative of the rate of salary increases that will be
provided in future years. We believe the OA is better positioned to reflect these factors in the development of the updated assumption as it best fits their model. For these reasons, we do not have a proposed assumption that is different than the current general increase assumption.

The current merit portion of the scale shows declines fairly quickly for the first five years of service, with smaller merit increases for the members for service years 6 through 25 . We propose decreasing the select period for this assumption from 25 years to 10 years, with smaller merit increases for years 6 through 10 .
3. Withdrawal Assumption: The number of actual withdrawals has been consistently higher than currently assumed. We are recommending a proposed assumption with higher termination rates. Due to the size of the group, we do not believe the experience provides complete credibility, the proposed assumption does not fully reflect the actual experience during the observation. Therefore, additional increases to the termination rates may be necessary in the next experience study if future experience is consistent with historical experience.
4. Retirement Patterns: Beginning with the census data as of June 30, 2010, the OA began to include an indicator in the retiree data that identified whether the member was a reduced retirement, a retirement in the first year eligible, in the second year, or after. This indicator greatly increased the credibility and reliability of the reconciliation process. As such, we have given more weight to the four-year period than the ten-year analysis. Consistent with national trends, members have been deferring retirement. We have made recommendations based on the trend as a whole and based on behavior at specific ages.

The cost estimates shown below are illustrative only and are based on the change in normal cost plus a 19-year amortization of the change in AAL as if all recommendations in this report were adopted. As discussed on Page II-1, there are always a range of reasonable assumptions and thus actual costs will be determined by the OA once the OA and the Board finalize the assumption changes.

## Illustrative Cost Estimates

\(\left.\begin{array}{||l|cc||}\hline \& FY 14 results (June 30, 2012 lag valuation) <br>
Normal Cost <br>
Employer Contribution <br>

(\$Millions)\end{array} \quad $$
\begin{array}{c}\text { (\$ Millions) }\end{array}
$$\right]\)| AALlions) |
| :--- |

## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM EXPERIENCE STUDY RESULTS OVERVIEW

| Table <br> Number | Table Type | 4-YEAR PERIOD ENDING 6/30/2013* |  | 10-YEAR PERIOD ENDING 6/30/2013* |  |  | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Average Number of Decrements per Year | Ratio of Actual to |  | Average <br> Number of <br> Decrements per <br> Year |  |
|  |  | Expected |  | Expected | Proposed |  |  |
|  | Service Retiree Mortality |  |  |  |  |  | The proposed assumption is based on actual TRS experience. Future |
| 1A | Men | 76\% | 76 | 82\% | 104\% | 77 | mortality improvements will be projected using scale MP-2014. |
| 1B | Women | 73\% | 231 | 84\% | 96\% | 233 |  |
| 1C | By Year |  |  |  |  |  |  |
|  | Disabled Retiree Mortality |  |  |  |  |  | The proposed assumption is equal to the proposed TRS Disabled |
| 2A | Men | 107\% | 9 | 100\% | 97\% | 8 | Retiree Mortality assumption. |
| 2B | Women | 99\% | 15 | 101\% | 101\% | 12 |  |
| 2 C | By Year |  |  |  |  |  |  |
|  | Active Member Withdrawals |  |  |  |  |  | Actual withdrawal experience appears to be higher than expected. |
| 3A | Men | 132\% | 179 | 155\% | 124\% | 207 | The proposed assumption is $125 \%$ for males and females of the |
| 3B | Women | 144\% | 476 | 167\% | 133\% | 568 | current assumption. |
| 3 C | By Year |  |  |  |  |  |  |
|  | Active Member Service Retirements |  |  |  |  |  | Actual experience appears lower than the current assumption for |
|  | In 1st Year of Eligibility |  |  |  |  |  | unreduced retirements. Maximum retirement age of 70 may need to |
| 4A | Total | 25\% | 67 | 38\% | 44\% | 94 | be increased as there are a material number of exposures in excess of |
| 4B | Elected | 32\% | 4 | 35\% | 47\% | 4 | 70. |
| 4 C | Mandated | 25\% | 63 | 38\% | 44\% | 90 |  |
|  | In 2nd Year of Eligibility |  |  |  |  |  |  |
| 5A | Total | 72\% | 111 | 74\% | 74\% | 86 |  |
| 5B | Elected | 110\% | 6 | 98\% | 98\% | 5 |  |
| 5C | Mandated | 71\% | 105 | 73\% | 73\% | 81 |  |
|  | After 2nd Year of Eligibility |  |  |  |  |  |  |
| 6A | Total | 44\% | 421 | 44\% | 90\% | 354 |  |
| 6B | Elected | 106\% | 16 | 100\% | 100\% | 10 |  |
| 6C | Mandated | 43\% | 406 | 43\% | 90\% | 343 |  |
| 6 D | By Year |  |  |  |  |  |  |
|  | Reduced Service Retirements |  |  |  |  |  |  |
| 7A | Total | 262\% | 166 | 252\% | 184\% | 235 | Reduced retirement actuals are outpacing what is expected, though |
| 7B | By Year |  |  |  |  |  | actual experience is trending towards the current assumption. |

# NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM EXPERIENCE STUDY RESULTS OVERVIEW 

| Table <br> Number | Table Type | 4-YEAR PERIOD ENDING 6/30/2013* |  | 10-YEAR PERIOD ENDING 6/30/2013* |  |  | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Expected | Average Number of Decrements per Year | Ratio of Actual to |  | Average <br> Number of <br> Decrements per <br> Year |  |
|  |  |  |  | Expected | Proposed |  |  |
|  | Active Member Ordinary Mortality |  |  |  |  |  | Experience has been volatile, but appears to be consistently lower |
| 8A | Men | 59\% | 7 | 82\% | 82\% | 9 |  |
| 8B | Women | 41\% | 13 | 66\% | 66\% | 19 |  |
| 8C | By Year |  |  |  |  |  |  |
|  | Active Member Ordinary Disability |  |  |  |  |  | Ordinary Disability experience appears lower than the current |
| 9A | Men | 42\% | 9 | 58\% | 68\% | 11 | assumption. The proposed assumption is $85 \%$ for males and $70 \%$ |
| 9B | Women | 39\% | 27 | 49\% | 69\% | 32 | females of the current assumption. |
| 9 C | By Year |  |  |  |  |  |  |
|  | Active Member Accidental Disability |  |  |  |  |  | Volatile experience with insufficient actuals to determine if changing |
| 10A | Men | 37\% | 1 | 96\% | 96\% | 2 | the assumption is appropriate. The current assumption appears |
| 10B | Women | 129\% | 5 | 130\% | 130\% | 5 | reasonable given the data over the experience period. |
| 10C | By Year |  |  |  |  |  |  |
|  | Salary Increases** | Expected | Actual | Expected | Proposed | Actual | Merit component is slightly higher than actual experience. Productivity |
| 11A | Total | 5.21\% | 1.53\% | 5.20\% | 4.37\% | 3.74\% | component has been significantly lower than expected and may need |
| 11B | Merit Only | 2.21\% | 0.68\% | 2.20\% | 1.37\% | 1.54\% | adjustment. |
|  | General Increase over Inflation | 0.50\% | -0.86\% | 0.50\% | 0.50\% | -0.23\% |  |
| 11C | By Year |  |  |  |  |  |  |

* Four-year and eight-year periods ending 6/30/2011 were studied for the Withdrawal and Disability Decrements.
** For Salary Increases, average annual percentage increase in salary is shown.

New York City Retirement Systems
Actuarial Experience Investigation
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NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM WITHDRAWAL ASSUMPTIONS AND EXPERIENCE
FOR THE EIGHT-YEAR PERIOD ENDING 6/30/2011


NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM ORDINARY DISABILITY ASSUMPTIONS AND EXPERIENCE

FOR THE EIGHT-YEAR PERIOD ENDING 6/30/2011


New York City Retirement Systems
Actuarial Experience Investigation
For the Four-Year and Ten-Year Periods Ending June 30, 2013

## GRS’ APPROACH TO ASSIGNING STATUSES FOR BERS ACTIVE TABLES FROM 6/30/2010 THROUGH 6/30/2013

| GRS Status Code | Meaning | Associated Decrement | MSTATP* | MSTATC* |
| :---: | :---: | :---: | :---: | :---: |
| A | Active |  |  | 10 |
| B | Active-Inactive, Adjusted | Withdrawal |  | 20 |
| B1 | Beneficiary of Retiree | Beneficiary |  |  |
| B2 | Beneficiary of Ordinary Death | Beneficiary |  |  |
| B3 | Beneficiary of Accidental Death | Beneficiary |  |  |
| B4 | Beneficiary of Ordinary Disability | Beneficiary |  |  |
| B5 | Beneficiary of Accidental Disability | Beneficiary |  |  |
| C | Active-Inactive, Adjusted | Withdrawal |  | 20 |
| D | Deceased | Ordinary Mortality |  |  |
| D1 | Ordinary Death w/o Ben | Ordinary Mortality |  | 60 |
| D2 | Accidental Death w/o Ben | Accidental Mortality |  |  |
| F | Active-Inactive | Withdrawal |  | 20 |
| I | Ordinary Disability | Ordinary Disability |  | 70 |
| J | Accidental Disability | Accidental Disability |  | 71 |
| L | Lump Sum | Withdrawal |  |  |
| P | Duplicate |  |  |  |
| R | Service Retirement Year 1 | Retirement |  | 90 |
| R | Service Retirement Year 2 | Retirement |  | 91 |
| R | Service Retirement Year Ultimate | Retirement |  | 92 |
| R | Reduced Service Retirement | Retirement |  | 93 |
| S | Retiree from Vested | Retirement |  |  |
| T | Terminated Non-Vested | Withdrawal |  | 80 |
| U | 5-Year Out | Withdrawal |  |  |
| V | Deferred Vested | Withdrawal |  | 81 |
| WI | Missing Ordinary Disability | Ordinary Disability |  |  |
| WJ | Missing Accidental Disability | Accidental Disability |  |  |
| WR | Missing Services Retirement | Retirement |  |  |
| WS | Missing Retirement from Vested | Retirement |  |  |
| Z | Refunded | Withdrawal |  |  |

GRS’ APPROACH TO ASSIGNING STATUSES FOR BERS PENSIONER TABLES FROM 6/30/2010 THROUGH 6/30/2013

| GRS Status Code | Meaning | Associated Decrement | MSTATP* | MSTATC* | RetCause** | PaycePen |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | Active |  |  |  |  |  |
| B | Active-Inactive, Adjusted | Withdrawal |  |  |  |  |
| B1 | Beneficiary of Retiree | Beneficiary |  |  | 0 or 3 | not 0 or 1 |
| B2 | Beneficiary of Ordinary Death | Beneficiary |  |  |  |  |
| B3 | Beneficiary of Accidental Death | Beneficiary |  |  | 4 | not 0 or 1 |
| B4 | Beneficiary of Ordinary Disability | Beneficiary |  |  | 2 | not 0 or 1 |
| B5 | Beneficiary of Accidental Disability | Beneficiary |  |  | 1 | not 0 or 1 |
| C | Active-Inactive, Adjusted | Withdrawal |  |  |  |  |
| D | Deceased | Mortality* |  | 60 |  |  |
| D1 | Ordinary Death w/o Ben | Mortality* |  |  |  |  |
| D2 | Accidental Death w/o Ben | Mortality* |  |  |  |  |
| F | Active-Inactive | Withdrawal |  |  |  |  |
| I | Ordinary Disability | Ordinary Disability |  |  | 2 or 6 | 0 or 1 |
| J | Accidental Disability | Accidental Disability |  |  | 1 | 0 or 1 |
| L | Lump Sum | Withdrawal |  |  |  |  |
| P | Duplicate |  |  |  |  |  |
| R | Service Retiree | Retirement |  |  | 3 | 0 or 1 |
| S | Retiree from Vested | Retirement |  |  | 0 | 0 or 1 |
| T | Terminated Non-Vested | Withdrawal |  | 80 |  |  |
| U | 5-Year Out | Withdrawal |  |  |  |  |
| V | Deferred Vested | Withdrawal | 70 | 10 | 0 |  |
| WI | Missing Ordinary Disability | Ordinary Disability | 70 | 10 | 2 | 0 or 1 |
| WJ | Missing Accidental Disability | Accidental Disability | 70 | 10 | 1 | 0 or 1 |
| WR | Missing Services Retirement | Retirement | 70 | 10 | 3 | 0 or 1 |
| WS | Missing Retirement from Vested | Retirement |  |  |  |  |
| Z | Refunded | Withdrawal |  |  |  |  |

* The mortality decrements are determined by the member's status in the previous year. For example, a disability retiree's mortality decrement would be Disabled Mortality.
** For all Tier 6 disabilities, indicated by RetCause equal to 6, members were classified as Ordinary Disabilities.

Status Changes Due to Maturation

| Status | Fiscal Year Ended June 30, |  |  |  |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |  |
| No Status | 0 | -1 | 0 | 0 | 0 | 0 | 0 | -3 | 0 | 0 | -2 | -6 |
| A | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| B | 9 | 8 | 0 | 17 | 59 | 88 | 243 | 254 | 231 | 190 | 0 | 1,099 |
| B1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| B2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| B3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| B4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| B5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 601 | 2,253 | 2,854 |
| D | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| D2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| F | -9 | -9 | 0 | -29 | -133 | -184 | -464 | -383 | -461 | -998 | -2,253 | -4,923 |
| I | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | 0 | 0 | -1 |
| J | 0 | 1 | 0 | 3 | 0 | 0 | 15 | 6 | 7 | 7 | 0 | 39 |
| L | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| P | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| R | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | -1 | 0 | 0 | -2 |
| S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| T | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 2 | 5 |
| U | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| V | 0 | 1 | 0 | 9 | 74 | 96 | 208 | 124 | 224 | 200 | 0 | 936 |
| WI | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| WJ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | 0 | -1 |
| WR | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| WS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Z | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total |  |  |  |  |  |  |  |  |  |  |  | 0 |

New York City Retirement Systems
Actuarial Experience Investigation
For the Four-Year and Ten-Year Periods Ending June 30, 2013
Status Counts after Maturation

| Status | Fiscal Year Ended June 30, |  |  |  |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |  |
| No Status | 27,195 | 32,913 | 32,355 | 30,104 | 28,461 | 26,383 | 24,761 | 41,169 | 40,847 | 36,070 | 36,403 | 356,661 |
| A | 22,494 | 21,419 | 23,098 | 23,379 | 22,434 | 23,206 | 23,299 | 23,324 | 23,131 | 27,840 | 25,848 | 259,472 |
| B | 9 | 8 | 0 | 17 | 59 | 88 | 243 | 254 | 231 | 190 | 0 | 1,099 |
| B1 | 517 | 533 | 550 | 584 | 606 | 599 | 623 | 545 | 556 | 538 | 640 | 6,291 |
| B2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| B3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 50 | 31 | 98 | 54 | 255 |
| B4 | 45 | 55 | 65 | 70 | 71 | 73 | 79 | 75 | 76 | 73 | 79 | 761 |
| B5 | 6 | 6 | 7 | 7 | 9 | 11 | 9 | 13 | 6 | 11 | 5 | 90 |
| C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 601 | 2,253 | 2,854 |
| D | 2,815 | 3,165 | 3,530 | 3,761 | 4,061 | 4,346 | 4,627 | 255 | 400 | 288 | 175 | 27,423 |
| D1 | 138 | 121 | 61 | 123 | 179 | 210 | 218 | 10 | 54 | 35 | 33 | 1,182 |
| D2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| F | 74 | 77 | 62 | 2,615 | 2,999 | 3,067 | 3,201 | 3,278 | 2,984 | 2,307 | 1,874 | 22,538 |
| I | 436 | 483 | 516 | 546 | 583 | 589 | 588 | 669 | 703 | 731 | 790 | 6,634 |
| J | 120 | 130 | 130 | 132 | 145 | 140 | 149 | 138 | 144 | 155 | 153 | 1,536 |
| L | 0 | 0 | 0 | 157 | 408 | 523 | 705 | 0 | 0 | 0 | 0 | 1,793 |
| P | 5 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| R | 10,012 | 10,261 | 10,528 | 10,961 | 11,341 | 11,610 | 11,813 | 11,963 | 12,362 | 12,698 | 13,074 | 126,623 |
| S | 271 | 273 | 276 | 273 | 279 | 276 | 271 | 371 | 388 | 411 | 457 | 3,546 |
| T | 6,870 | 6,661 | 5,728 | 4,361 | 5,435 | 5,973 | 6,456 | 940 | 1,041 | 930 | 1,330 | 45,725 |
| U | 365 | 264 | 300 | 299 | 298 | 297 | 297 | 0 | 0 | 0 | 0 | 2,120 |
| V | 293 | 315 | 325 | 382 | 401 | 381 | 437 | 327 | 425 | 407 | 200 | 3,893 |
| WI | 0 | 1 | 8 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 14 |
| WJ | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| WR | 22 | 152 | 240 | 11 | 16 | 16 | 15 | 4 | 5 | 2 | 17 | 500 |
| WS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y | 11,694 | 6,542 | 5,603 | 5,599 | 5,595 | 5,592 | 5,590 | 0 | 0 | 0 | 0 | 46,215 |
| Z | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total |  |  |  |  |  |  |  |  |  |  |  | 917,234 |

GRS $\begin{aligned} & \text { Gabriel Roeder Smith \& Company } \\ & \text { consultants \& Actuaries }\end{aligned}$

## SECTION V <br> SUMMARY RESULTS BY SYSTEM: POLICE

## POLICE

## Findings and Recommendations

The results of the four-year and ten-year experience studies are shown in Appendix IX. We have quantified the differences between actual experience and current actuarial assumptions as well as provided proposed assumptions we believe would be appropriate and reasonable. The tables on the page following our summary of recommendations provide a summary of the reconciliation in comparison to the current assumptions.

The following business rules were applied to the POLICE data. A general description of each rule may be found at the beginning of Section V.

## Business Rules

| Rule \# | Rule Name |
| :---: | :--- |
| 1 | Death Reclassification |
| 2 | Accidental Disability Reclassification |
| 3 | Ordinary Disability Reclassification |
| 4 | Status Continuity |
| 5 | Active-Inactive Reclassification \#1 |
| 6 | Active-Inactive Reclassification \#2 |
| 7 | Service Retirement Adjustment |
| 8 | Eligibility Adjustment |

Based on our analysis of POLICE, GRS recommends consideration of the following changes for future valuations:

1. Post-Retirement Mortality: We recommend updating the base mortality table to a System-specific mortality table developed using POLICE's actual experience. We also recommend using a full generational mortality assumption using projection scale MP-2014. A new table based on the results of this study and the application of MP-2014 is provided in the Appendix.
2. Salary and Overtime Assumptions: While there is a large amount of variation in the average salary increase from year to year, the actual average salary increases for individual members over the observation period have been higher than expected based on the current assumptions. As a result, we recommend the OA increase the rates of the merit component of the salary increase assumption, especially for members with more than five-years of service.

The following table gives the average actual increase and the average expected increase by category:

|  | 4-Year Period Ending FY2013 |  | 10-Year Period Ending FY2013 |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Expected | Actual | Expected | Actual |
| Inflation | $2.50 \%$ | $2.00 \%$ | $2.50 \%$ | $2.43 \%$ |
| General Increase <br> above Inflation | $1.00 \%$ | $-0.47 \%$ | $1.00 \%$ | $0.73 \%$ |
| Average <br> Additional Merit | $4.04 \%$ | $6.68 \%$ | $3.87 \%$ | $4.91 \%$ |
| Total Average <br> Salary Increase | $7.54 \%$ | $8.21 \%$ | $7.37 \%$ | $8.07 \%$ |
| Baseline <br> Overtime | $14.76 \%$ | $16.92 \%$ | $14.84 \%$ | $17.23 \%$ |
| Dual Service <br> Overtime | $14.03 \%$ | $21.12 \%$ | $14.42 \%$ | $23.89 \%$ |
| Overtime "Spike" | $-0.71 \%$ | $4.20 \%$ | $-0.42 \%$ | $6.66 \%$ |

As shown, for the four and ten-year period, the actual merit increases were noticeably higher than assumed. The following graph shows the growth of salary for a new member hired with a hypothetical $\$ 40,000$ salary receiving only the merit portion of the salary schedule during their career. As shown, the actual experience has materially outpaced the assumption.


Due to external factors (such as $9 / 11$ and contract negotiations), it is unlikely the rate of salary increases the members experienced over the last ten years is representative of the rate of salary increases that will be provided in future years. That said, we are recommending an increase to the assumed rate of merit increases, especially for members with more than five years of service, and have provided a revised assumption in the Appendix. Since the rate of compensation increases is very dependent on several external factors which include contract agreements and current human capital philosophies, we believe the OA is better positioned to reflect these factors in the development of the updated assumption.

Experience also shows there is a behavior for members to incur additional overtime to increase their compensation in the year prior to retirement. This is most likely attributable to the member intentionally increasing their final compensation, or "spiking," for purposes of increasing the amount of their retirement benefit. Since "spiking" is a behavioral measure that is permitted by plan design and less related to compensation structure, we are recommending updating the assumption to a constant 22\% Overtime Pay Assumption for members eligible for a service retirement benefit, which equates to an approximate average $6 \%$ overtime "spiking" assumption. Since it is more difficult for Tier 6 members to spike their overtime based on their averaging period, a lower assumption is likely more appropriate for this group.

It is our understanding that management is aware of an increase in overtime for the City's uniformed forces in recent years. To address the situation for Police, the City has implemented an overtime reduction consistent with the Police Commissioner's commitment to reduce such expenditures going forward. Overtime expenditure levels will be strictly monitored by the Police Department and by the Office of Management and Budget to ensure they do not exceed budgeted overtime amounts. The OA should monitor this assumption for changes in behavior to reflect in future valuations.

These recommendations, if incorporated by the OA in their assumption updates, would increase the liability and contribution requirements.
3. Withdrawal Assumption: The number of actual withdrawals has been on a steady decline over the last eight years for the period ending June 30, 2011. However, we are not recommending a change at this time. The experience has been lower than the assumption for the short term but higher over the longer term. We do recommend the OA continue to monitor this assumption as a reduction may be appropriate in the future.
4. Disability Assumption: Experience indicates the OA could substantially reduce the rates of disability for members who are eligible for WTC benefits. We recommend the OA adopt new assumptions that move at least halfway toward the experience from current expectations. However, the OA purposefully uses higher rates of disability than actual experience to reflect members who would have qualified for disability, but instead chose normal retirement because they would be eligible for a VSF benefit. Thus, we are
recommending lower probabilities but not reflecting as large an adjustment as the experience would suggest.

The cost estimates shown below are illustrative only and are based on the change in normal cost plus a 19-year amortization of the change in AAL as if all recommendations in this report were adopted. As discussed on Page II-1, there are always a range of reasonable assumptions and thus actual costs will be determined by the OA once the OA and the Board finalize the assumption changes.

## Illustrative Cost Estimates

|  | FY 14 results (June 30, 2012 lag valuation) |  |  |
| :---: | :---: | :---: | :---: |
|  | AAL (\$ Millions) | Normal Cost (\$Millions) | Employer Contribution (\$ Millions) |
| Base Results (current Assumptions) | \$42,463 | \$1,242 | \$2,262 |
| Estimated Change for changes in |  |  |  |
| Mortality Assumptions | \$870 | \$25 | \$107 |
| Overtime Assumptions | \$557 | \$62 | \$114 |
| Other pay related and demographic assumptions | \$576 | -\$49 | \$6 |
| Sub Total | \$44,466 | \$1,280 | \$2,488 |
| Estimated Change for $1 / 4 \%$ decrease in investment return assumption | \$1,226 | \$68 | \$157 |
| Total | \$45,692 | \$1,348 | \$2,645 |

## NEW YORK CITY POLICE PENSION FUND EXPERIENCE STUDY RESULTS OVERVIEW

| $\begin{gathered} \text { Table } \\ \text { Number } \\ \hline \end{gathered}$ | Table Type | 4-YEAR PERIOD ENDING 6/30/2013* |  | 10-YEAR PERIOD ENDING 6/30/2013* |  |  | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Expected | Average Number of Decrements per Year | Ratio of Actual to |  | AverageNumber ofDecrements perYear |  |
|  |  |  |  | Expected | Proposed |  |  |
| 1A | Service Retiree MortalityMen | 96\% | 520 | 97\% | 97\% | 503 | The proposed assumption is a based on actual plan experience. Future mortality improvements will be projected using scale MP2014. |
|  |  |  |  |  |  |  |  |
| 1B | By Year |  |  |  |  |  |  |
|  | Disabled Retiree MortalityMen | 89\% | 311 | 88\% | 94\% | 286 | The proposed assumption is a based on actual plan experience.Future mortalit improvements will be projected using scale MP-2014. |
| 2 A |  |  |  |  |  |  |  |
| 2B | By Year |  |  |  |  |  |  |
| 3 A3 B | Active Member Withdrawals By Year | 82\% | 318 | 137\% | 137\% | 537 | Actual experience has been trending downward. Recommend no change at this time as different timeframes provide different results. |
|  |  |  |  |  |  |  |  |
| Active Member Service Retirements |  | 71\% |  |  |  |  | Recent experience has been consistent with OA assumption. |
| 4A | In 1st Year of Eligibility |  | 602 | 97\% | 97\% | 886 |  |
| 4B | In 2nd Year of Eligibility | 136\% | 140382 | 114\% | 114\% | 104 |  |
| 4 C | After 2nd Year of Eligibility | 101\% |  | 88\% | 88\% | 239 |  |
| 4 D | By Year |  |  |  |  |  |  |
|  | Active Member Ordinary MortalityMenBy Year | 76\% | 14 | 94\% | 94\% | 16 | Actual experience has been consistent with current assumption, with trend lowering recently. We recommend no change. |
| 5A |  |  |  |  |  |  |  |
| 5B |  |  |  |  |  |  |  |
| 6 A | Active Member Accidental Mortality By Year | 45\% | 3 | 61\% | 76\% | 4 | Actual experience appears lower than current assumption. We recommend a lower assumption. |
| 6B |  |  |  |  |  |  |  |

## NEW YORK CITY POLICE PENSION FUND EXPERIENCE STUDY RESULTS <br> OVERVIEW

| Active Member Ordinary Disability By Year | 95\% | 51 | 118\% | 118\% | 63 | Recent experience has been consistent with OA assumption. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Active Member Accidental Disability WTC Eligible WTC Ineligible By Year | $\begin{gathered} 54 \% \\ 67 \% \end{gathered}$ | $\begin{gathered} 241 \\ 91 \end{gathered}$ | $\begin{gathered} 49 \% \\ 105 \% \end{gathered}$ | $\begin{gathered} 76 \% \\ 104 \% \end{gathered}$ | $\begin{aligned} & 226 \\ & 134 \end{aligned}$ | Actual experience has been lower than current assumption. Members that are and are not eligible for WTC benefits appear to have similar actual experience. New rates, exponentially-fitted to actual data, are proposed for both those eligible and not eligible for WTC Disability. |
| Salary Increases** <br> Total <br> Merit Only <br> General Increase over Inflation By Year | Expected <br> $7.54 \%$ <br> $4.54 \%$ <br> $0.50 \%$ | Actual <br> $8.21 \%$ <br> $6.68 \%$ <br> $-0.47 \%$ | Expected <br> $7.37 \%$ <br> $4.37 \%$ <br> $0.50 \%$ | Proposed <br> $6.35 \%$ <br> $2.35 \%$ <br> $0.50 \%$ | Actual <br> $8.07 \%$ <br> $3.21 \%$ <br> $0.62 \%$ | Overall, salary experience has outpaced the assumption. We recommend a higher merit portion of the salary scale. |
| Overtime Pay** <br> For All Years <br> In Year Before Service Retirement In Year Before Disability Retirement By Year | Expected <br> $14.76 \%$ <br> $14.03 \%$ <br> $14.73 \%$ | Actual <br> $16.92 \%$ <br> $21.12 \%$ <br> $11.13 \%$ | Expected <br> $14.84 \%$ <br> $14.42 \%$ <br> $14.75 \%$ | Proposed <br> $16.00 \%$ <br> $22.00 \%$ <br> $16.00 \%$ | Actual <br> $17.23 \%$ <br> 23.89\% <br> 11.54\% | Recommend a flat assumption for OT and OT in year before disability. Recommend a higher OT assumption before retirement. Members are working less Overtime before becoming disabled. |

* Four-year and eight-year periods ending 6/30/2011 were studied for the Withdrawal and Disability Decrements.
** For Salary Increases, average annual percentage increase in salary is shown. For Overtime Pay, average annual overtime pay is expressed as a percentage of salary.

New York City Retirement Systems
Actuarial Experience Investigation
For the Four-Year and Ten-Year Periods Ending June 30, 2013

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND DISABILITY ASSUMPTIONS AND EXPERIENCE <br> FOR THE EIGHT-YEAR PERIOD ENDING 6/30/2011



NEW YORK CITY POLICE DEPARTMENT PENSION FUND OVERTIME ASSUMPTIONS AND EXPERIENCE FOR THE TEN-YEAR PERIOD ENDING 6/30/2013


## GRS’ APPROACH TO ASSIGNING STATUSES FOR POLICE ACTIVE TABLES

 FROM 6/30/2010 THROUGH 6/30/2013| GRS Status Code | Meaning | Associated Decrement | MSTATP* | MSTATC* |
| :---: | :---: | :---: | :---: | :---: |
| A | Active |  |  | 10 |
| B | Active-Inactive, Adjusted | Withdrawal |  | 20 |
| B1 | Beneficiary of Retiree | Beneficiary |  |  |
| B2 | Beneficiary of Ordinary Death | Beneficiary |  |  |
| B3 | Beneficiary of Accidental Death | Beneficiary |  |  |
| B4 | Beneficiary of Ordinary Disability | Beneficiary |  |  |
| B5 | Beneficiary of Accidental Disability | Beneficiary |  |  |
| C | Active-Inactive, Adjusted | Withdrawal |  | 20 |
| D | Deceased | Ordinary Mortality |  |  |
| D1 | Ordinary Death w/o Ben | Ordinary Mortality |  | 60 |
| D2 | Accidental Death w/o Ben | Accidental Mortality |  | 61 |
| F | Active-Inactive | Withdrawal |  | 20 |
| I | Ordinary Disability | Ordinary Disability |  | 70 |
| J | Accidental Disability | Accidental Disability |  | 71 |
| L | Lump Sum | Withdrawal |  |  |
| P | Duplicate |  |  |  |
| R | Service Retiree | Retirement |  | 90 |
| R | Service Retirement Year 2 | Retirement |  | 91 |
| R | Service Retirement Year Ultimate | Retirement |  | 92 |
| R | Reduced Service Retirement | Retirement |  | 93 |
| S | Retiree from Vested | Retirement |  |  |
| T | Terminated Non-Vested | Withdrawal |  | 80 |
| U | 5-Year Out | Withdrawal |  |  |
| V | Deferred Vested | Withdrawal |  | 81 |
| WI | Missing Ordinary Disability | Ordinary Disability |  |  |
| WJ | Missing Accidental Disability | Accidental Disability |  |  |
| WR | Missing Services Retirement | Retirement |  |  |
| WS | Missing Retirement from Vested | Retirement |  |  |
| Z | Refunded | Withdrawal |  |  |

GRS’ APPROACH TO ASSIGNING STATUSES FOR POLICE PENSIONER TABLES FROM 6/30/2010 THROUGH 6/30/2013

| GRS Status <br> Code | Meaning | Associated Decrement | MSTATP** MSTATC* | RetCause | PayeePen |  |
| :---: | :--- | :--- | :--- | :--- | :--- | :---: |
| A | Active |  |  |  |  |  |
| B | Active-Inactive, Adjusted | Withdrawal |  |  |  |  |
| B1 | Beneficiary of Retiree | Beneficiary |  |  | 0 or 3 | not 0 or 1 |
| B2 | Beneficiary of Ordinary Death | Beneficiary |  |  | 7 | not 0 or 1 |
| B3 | Beneficiary of Accidental Death | Beneficiary |  |  | 4 | not 0 or 1 |
| B4 | Beneficiary of Ordinary Disability | Beneficiary |  |  | 2 | not 0 or 1 |
| B5 | Beneficiary of Accidental Disability | Beneficiary |  |  | 1 | not 0 or 1 |
| C | Active-Inactive, Adjusted | Withdrawal |  |  |  |  |
| D | Deceased | Mortality* |  | 60 |  |  |
| D1 | Ordinary Death w/o Ben | Mortality* |  |  |  |  |
| D2 | Accidental Death w/o Ben | Mortality* |  |  |  |  |
| F | Active-Inactive | Withdrawal |  |  |  |  |
| I | Ordinary Disability | Ordinary Disability |  |  | 2 | 0 or 1 |
| J | Accidental Disability | Accidental Disability |  |  | 1 | 0 or 1 |
| L | Lump Sum | Withdrawal |  |  |  |  |
| P | Duplicate | Retirement |  |  |  |  |
| R | Service Retiree | Retirement |  |  | 3 | 0 or 1 |
| S | Retiree from Vested | Withdrawal |  | 80 |  | 0 or 1 |
| T | Terminated Non-Vested | Withdrawal |  |  |  |  |
| U | 5-Year Out | Withdrawal | 70 | 10 | 0 |  |
| V | Deferred Vested | Ordinary Disability |  |  |  |  |
| WI | Missing Ordinary Disability | Accidental Disability |  |  |  |  |
| WJ | Missing Accidental Disability | Retirement |  |  |  |  |
| WR | Missing Services Retirement | Retirement |  |  |  |  |
| WS | Missing Retirement from Vested | Withdrawal |  |  |  |  |
| Z | Refunded |  |  |  |  |  |

[^0]
## Business Rule 1: Death Reclassification

| Description: | Example: |  | 2006 | 2007 | 2008 | 2009 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| For a member who shows as a death in a given data file and shows a date of death in an earlier period, the death status was filled backwards until the fiscal year associated with the death date. | A member is identified as a death status in the 6/30/2009 data file with a Date of Death of $7 / 2 / 2006$. The member's 6/30/2007 status and all future statuses are updated to reflect the new Date of Death. | Initial | R | R | R | R |
|  |  |  |  | - | - | - |
|  |  | Matured | R | D | D | D |



Business Rule 2: Accidental Disability Reclassification

| Description: | Example: |  | 2002 | 2003 | 2004 | 2005 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| For members reclassifying to Accidental Disability (status code ' $J$ ') within one year after retirement, GRS changed the record as though the member immediately retired under Accidental Disability. | An active member retires 8/22/2002 and is reclassified to Accidental Disability as of $6 / 30 / 2005$. The statuses for FYE 2003 and 2004 are changed to Accidental Disability. | Initial | A | R | J | J |
|  |  |  |  | J |  |  |
|  |  | Matured | A | J | J | J |


| Status | Fiscal Year Ended June 30, |  |  |  |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |  |
| No Status |  |  |  |  |  |  |  |  |  |  |  |  |
| A |  |  |  |  |  |  |  |  |  |  |  |  |
| B |  |  |  |  |  |  |  |  |  |  |  |  |
| B1 |  |  |  |  |  |  |  |  |  |  |  |  |
| B2 |  |  |  |  |  |  |  |  |  |  |  |  |
| B3 |  |  |  |  |  |  |  |  |  |  |  |  |
| B4 |  |  |  |  |  |  |  |  |  |  |  |  |
| B5 |  |  |  |  |  |  |  |  |  |  |  |  |
| C |  |  |  |  |  |  |  |  |  |  |  |  |
| D |  |  |  |  |  |  |  |  |  |  |  |  |
| D1 |  |  | 13 |  |  |  | 56 | 41 | 60 | 48 |  | 218 |
| D2 |  |  |  |  |  |  |  |  |  |  |  |  |
| F |  |  |  |  |  |  |  |  | -1 |  |  | -1 |
| I |  |  |  |  |  |  | -10 | -2 | -6 | -8 |  | -26 |
| J |  |  |  |  |  |  |  |  |  |  |  |  |
| L |  |  |  |  |  |  |  |  |  |  |  |  |
| R |  |  | -13 |  |  |  | -46 | -39 | -53 | -38 |  | -189 |
| S |  |  |  |  |  |  |  |  |  | -2 |  | -2 |
| T |  |  |  |  |  |  |  |  |  |  |  |  |
| U |  |  |  |  |  |  |  |  |  |  |  |  |
| V |  |  |  |  |  |  |  |  |  |  |  |  |
| WI |  |  |  |  |  |  |  |  |  |  |  |  |
| WJ |  |  |  |  |  |  |  |  |  |  |  |  |
| WR |  |  |  |  |  |  |  |  |  |  |  |  |
| WS |  |  |  |  |  |  |  |  |  |  |  |  |
| Y |  |  |  |  |  |  |  |  |  |  |  |  |
| Z |  |  |  |  |  |  |  |  |  |  |  |  |
| Total |  |  |  |  |  |  |  |  |  |  |  |  |

Business Rule 3: Ordinary Disability Reclassification

| Description: | Example: |  | 2001 | 2002 | 2003 | 2004 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| For members retiring under Ordinary Disability (status code 'I'), either after service retirement or after termination, GRS changed the record as though the member immediately retired under Ordinary Disability. | An active member retires 4/23/2002 and is reclassified to ordinary disability in FYE 2004. The statuses for FYE 2002 and 2003 are changed to Ordinary Disability. | Initial | A | R | R | I |
|  |  |  |  |  | - |  |
|  |  | Matured | A | I | I | I |


| Status | Fiscal Year Ended June 30, |  |  |  |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |  |
| No Status |  |  |  |  |  |  |  |  |  |  |  |  |
| A |  |  |  |  |  |  |  |  |  |  |  |  |
| B |  |  |  |  |  |  |  |  |  |  |  |  |
| B1 |  |  |  |  |  |  |  |  |  |  |  |  |
| B2 |  |  |  |  |  |  |  |  |  |  |  |  |
| B3 |  |  |  |  |  |  |  |  |  |  |  |  |
| B4 |  |  |  |  |  |  |  |  |  |  |  |  |
| B5 |  |  |  |  |  |  |  |  |  |  |  |  |
| C |  |  |  |  |  |  |  |  |  |  |  |  |
| D |  |  |  |  |  |  | 1 | 1 | 2 | 4 |  | 8 |
| D1 |  |  |  |  |  |  |  |  |  |  |  |  |
| D2 |  |  |  |  |  |  |  |  |  |  |  |  |
| F |  |  |  |  |  |  | -1 | -1 | -1 | -2 |  | -5 |
| I |  |  |  |  |  |  |  |  |  |  |  |  |
| J |  |  |  |  |  |  |  |  |  |  |  |  |
| L |  |  |  |  |  |  |  |  |  |  |  |  |
| R |  |  |  |  |  |  |  |  | -1 | -2 |  | -3 |
| S |  |  |  |  |  |  |  |  |  |  |  |  |
| T |  |  |  |  |  |  |  |  |  |  |  |  |
| U |  |  |  |  |  |  |  |  |  |  |  |  |
| V |  |  |  |  |  |  |  |  |  |  |  |  |
| WI |  |  |  |  |  |  |  |  |  |  |  |  |
| WJ |  |  |  |  |  |  |  |  |  |  |  |  |
| WR |  |  |  |  |  |  |  |  |  |  |  |  |
| WS |  |  |  |  |  |  |  |  |  |  |  |  |
| Y |  |  |  |  |  |  |  |  |  |  |  |  |
| Z |  |  |  |  |  |  |  |  |  |  |  |  |
| Total |  |  |  |  |  |  |  |  |  |  |  |  |

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## Business Rule 4: Status Continuity

| Description: | Example: |  | 2004 | 2005 | 2006 | 2007 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| In any three year period, if the first and last year's status matched, the middle year was also changed to be consistent. This rule was applied to statuses A, I, J , and R . | A record shows ordinary disability in 6/30/2004 and 6/30/2006 but beneficiary in $6 / 30 / 2005$. The $6 / 30 / 2005$ status is changed to ordinary disability. | Initial | I | B3 | I | I |
|  |  |  |  | $\checkmark$ |  |  |
|  |  | Matured | I | I | I | I |


| Status | Fiscal Year Ended June 30, |  |  |  |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |  |
| No Status |  |  |  |  |  |  |  |  |  |  |  |  |
| A |  |  |  |  |  |  | 79 | 66 | 60 | 46 |  | 251 |
| B |  |  |  |  |  |  |  |  |  |  |  |  |
| B1 |  |  |  |  |  |  |  |  |  |  |  |  |
| B2 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| B3 |  |  |  |  |  |  |  |  |  |  |  |  |
| B4 |  |  |  |  |  |  |  |  |  |  |  |  |
| B5 |  |  |  |  |  |  |  |  |  |  |  |  |
| C |  |  |  |  |  |  |  |  |  |  |  |  |
| D |  |  |  |  |  |  |  |  |  |  |  |  |
| D1 |  |  |  |  |  |  |  |  |  |  |  |  |
| D2 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| F |  |  |  |  |  |  | -79 | -66 | -60 | -46 |  | -251 |
| I |  |  |  |  |  |  |  |  |  |  |  |  |
| J |  |  |  |  |  |  |  |  |  |  |  |  |
| L |  |  |  |  |  |  |  |  |  |  |  |  |  |
| R |  |  |  |  |  |  |  |  |  |  |  |  |
| S |  |  |  |  |  |  |  |  |  |  |  |  |
| T |  |  |  |  |  |  |  |  |  |  |  |  |
| U |  |  |  |  |  |  |  |  |  |  |  |  |  |
| V |  |  |  |  |  |  |  |  |  |  |  |  |
| WI |  |  |  |  |  |  |  |  |  |  |  |  |
| WJ |  |  |  |  |  |  |  |  |  |  |  |  |
| WR |  |  |  |  |  |  |  |  |  |  |  |  |  |
| WS |  |  |  |  |  |  |  |  |  |  |  |  |
| Y |  |  |  |  |  |  |  |  |  |  |  |  |
| Z |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total |  |  |  |  |  |  |  |  |  |  |  |  |

Business Rule 5: Active-Inactive Reclassification \#1

| Description: | Example: |  | 2008 | 2009 | 2010 | 2011 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Status B was introduced to differentiate activeinactive members that returned to service. Any active member that becomes active-inactive for a period and eventually returns to active service will have all active-inactive statuses changed to B . | An active member as of 6/30/2008 becomes Active-Inactive as of 6/30/2009. When the member returns to active status in 6/30/2011, all prior active-inactive years are changed to $B$. | Initial | A | F | F | A |
|  |  |  |  |  |  |  |
|  |  | Matured | A | B | B | A |

Business Rule 6: Active-Inactive Reclassification \#2

| Description: | Example: |  | 2010 | 2011 | 2012 | 2013 |  |  |
| :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Status C was introduced to differentiate active- <br> inactive members in the final two years of the <br> experience period. Any active member that becomes <br> active-inactive during this period will have all active- <br> inactive statuses changed to C. | An active member as of FYE 2011 <br> becomes Active-Inactive as of FYE <br> 2012. Based on this Rule, the <br> member's status for FYE 2012 and <br> 2013 is changed to C. |  |  |  |  |  |  |  |

Status B\&C were added to classify members as active in the reconcilation process but not include them in the salary analysis.

Impact of Business Rules 5 and 6

| Status | Fiscal Year Ended June 30, |  |  |  |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |  |
| No Status |  |  |  |  |  |  |  |  |  |  |  |  |
| A |  |  |  |  |  |  |  |  |  |  |  |  |
| B |  |  |  | -4 | -4 | -15 | -88 | -70 | -67 | -47 |  | -295 |
| B1 |  |  |  |  |  |  |  |  |  |  |  |  |
| B2 |  |  |  |  |  |  |  |  |  |  |  |  |
| B3 |  |  |  |  |  |  |  |  |  |  |  |  |
| B4 |  |  |  |  |  |  |  |  |  |  |  |  |
| B5 |  |  |  |  |  |  |  |  |  |  |  |  |
| C |  |  |  |  |  |  |  |  |  | -63 | -206 | -269 |
| D |  |  |  |  |  |  |  |  |  |  |  |  |
| D1 |  |  |  |  |  |  |  |  |  |  |  |  |
| D2 |  |  |  |  |  |  |  |  |  |  |  |  |
| F |  |  |  | 4 | 4 | 15 | 88 | 70 | 67 | 110 | 206 | 564 |
| I |  |  |  |  |  |  |  |  |  |  |  |  |
| J |  |  |  |  |  |  |  |  |  |  |  |  |
| L |  |  |  |  |  |  |  |  |  |  |  |  |
| R |  |  |  |  |  |  |  |  |  |  |  |  |
| S |  |  |  |  |  |  |  |  |  |  |  |  |
| T |  |  |  |  |  |  |  |  |  |  |  |  |
| U |  |  |  |  |  |  |  |  |  |  |  |  |
| V |  |  |  |  |  |  |  |  |  |  |  |  |
| WI |  |  |  |  |  |  |  |  |  |  |  |  |
| WJ |  |  |  |  |  |  |  |  |  |  |  |  |
| WR |  |  |  |  |  |  |  |  |  |  |  |  |
| WS |  |  |  |  |  |  |  |  |  |  |  |  |
| Y |  |  |  |  |  |  |  |  |  |  |  |  |
| Z |  |  |  |  |  |  |  |  |  |  |  |  |
| Total |  |  |  |  |  |  |  |  |  |  |  |  |

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Status Changes Due to Maturation, Using Business Rules 1, 2, 3, 4, 5 and 6

| Status | Fiscal Year Ended June 30, |  |  |  |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |  |
| No Status |  |  |  |  |  |  |  |  |  |  |  |  |
| A |  |  |  | -1 |  |  | 78 | 66 | 60 | 46 |  | 249 |
| B |  |  |  | -4 | -4 | -15 | -88 | -70 | -67 | -47 |  | -295 |
| B1 | -204 | -33 | -38 | -22 | -36 | -28 | -39 | -1 |  |  |  | -401 |
| B2 |  |  | -1 |  |  |  |  | -1 |  | -3 | -1 | -6 |
| B3 |  |  |  |  |  |  |  |  |  |  |  |  |
| B4 | 335 | 98 | 85 | 49 | 75 | 72 | 103 | 91 | 65 | 61 | 55 | 1,089 |
| B5 | -88 | -8 | -11 | -10 | -13 | -9 | -9 | -61 | -54 | -50 | -54 | -367 |
| C |  |  |  |  |  |  |  |  |  | -63 | -206 | -269 |
| D |  |  |  |  |  |  | 1 | 1 | 2 | 4 |  | 8 |
| D1 | -10 | -17 | 7 | -1 | -12 | -8 | 36 | 34 | 55 | 42 |  | 126 |
| D2 |  |  |  |  |  |  |  |  |  |  |  |  |
| F |  |  |  | 3 | 3 | 13 | 6 | -6 | 1 | 62 | 206 | 288 |
| I | -11 | -8 | -2 | -5 | -4 | -5 | -15 | -6 | -7 | -8 |  | -71 |
| J | -5 | -8 | -2 | -5 | -4 | -7 | -5 |  | -1 |  |  | -37 |
| L |  |  |  |  |  |  | -2 |  |  |  |  | -2 |
| R | -17 | -23 | -38 | -4 | -5 | -13 | -66 | -47 | -54 | -41 |  | -308 |
| S |  | -1 |  |  |  |  |  |  |  | -3 |  | -4 |
| T |  |  |  |  |  |  |  |  |  |  |  |  |
| U |  |  |  |  |  |  |  |  |  |  |  |  |
| V |  |  |  |  |  |  |  |  |  |  |  |  |
| WI |  |  |  |  |  |  |  |  |  |  |  |  |
| WJ |  |  |  |  |  |  |  |  |  |  |  |  |
| WR |  |  |  |  |  |  |  |  |  |  |  |  |
| WS |  |  |  |  |  |  |  |  |  |  |  |  |
| Y |  |  |  |  |  |  |  |  |  |  |  |  |
| Z |  |  |  |  |  |  |  |  |  |  |  |  |
| Total |  |  |  |  |  |  |  |  |  |  |  |  |

New York City Retirement Systems
Actuarial Experience Investigation
For the Four-Year and Ten-Year Periods Ending June 30, 2013
Status Counts after Maturation, Using Business Rules 1, 2, 3, 4, 5 and 6

| Status | Fiscal Year Ended June 30, |  |  |  |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |  |
| No Status | 16,121 | 14,767 | 11,341 | 8,442 | 5,976 | 3,695 | 2,136 | 5,656 | 5,933 | 6,196 | 6,596 | 86,859 |
| A | 36,208 | 35,144 | 35,477 | 35,337 | 35,357 | 35,456 | 35,709 | 34,311 | 32,284 | 30,456 | 29,054 | 374,793 |
| B |  |  |  |  |  |  |  |  |  |  |  |  |
| B1 | 1,090 | 933 | 801 | 677 | 557 | 465 | 396 | 307 | 248 | 205 | 164 | 5,843 |
| B2 |  |  |  | 2 | 3 | 3 | 3 |  |  |  |  | 11 |
| B3 | 311 | 311 | 313 | 316 | 309 | 301 | 289 | 280 | 276 | 268 | 263 | 3,237 |
| B4 | 27 | 28 | 21 | 19 | 18 | 16 | 14 | 13 | 11 | 10 | 10 | 187 |
| B5 | 34 | 33 | 32 | 31 | 31 | 29 | 29 | 26 | 24 | 22 | 21 | 312 |
| C |  |  |  |  |  |  |  |  |  |  |  |  |
| D | 10,552 | 11,453 | 12,391 | 13,266 | 14,213 | 15,171 | 16,130 | 17,068 | 18,020 | 18,934 | 19,884 | 167,082 |
| D1 | 9 | 12 | 6 | 7 | 12 | 16 | 18 | 4 |  | 10 | 22 | 116 |
| D2 | 8 | 5 | 2 | 2 | 6 | 12 | 13 | 2 | 2 |  | 3 | 55 |
| F | 3 | 3 | 3 | 1,336 | 1,503 | 1,738 | 1,885 | 1,736 | 1,547 | 1,277 | 1,141 | 12,172 |
| I | 3,933 | 3,911 | 3,878 | 3,829 | 3,751 | 3,665 | 3,587 | 3,519 | 3,438 | 3,342 | 3,258 | 40,111 |
| J | 10,152 | 10,449 | 10,672 | 10,942 | 11,134 | 11,306 | 11,485 | 11,634 | 11,803 | 11,943 | 12,067 | 123,587 |
| L |  |  |  |  |  |  | 8 |  |  |  |  | 8 |
| R | 22,510 | 23,766 | 25,235 | 26,500 | 27,440 | 27,751 | 27,648 | 26,876 | 27,866 | 28,691 | 28,947 | 293,230 |
| S | 119 | 110 | 136 | 167 | 213 | 207 | 203 | 1,262 | 1,340 | 1,388 | 1,420 | 6,565 |
| T | 2,244 | 2,293 | 2,850 | 2,188 | 2,512 | 3,178 | 3,426 | 323 | 296 | 375 | 298 | 19,983 |
| U | 42 | 40 | 40 | 40 | 39 | 39 | 39 |  |  |  |  | 279 |
| V | 495 | 597 | 643 | 755 | 782 | 808 | 838 | 846 | 775 | 746 | 715 | 8,000 |
| WI |  |  | 1 |  |  |  |  |  |  |  |  | 1 |
| WJ |  |  | 1 |  |  |  |  |  |  |  |  | 1 |
| WR |  | 3 | 12 | 2 | 2 | 2 | 2 |  |  |  |  | 23 |
| WS |  |  | 3 |  |  |  |  |  |  |  |  | 3 |
| Y |  |  |  |  |  |  |  |  |  |  |  |  |
| Z |  |  |  |  |  |  |  |  |  |  |  |  |
| Total |  |  |  |  |  |  |  |  |  |  |  | 1,142,458 |

## Development of WTC Reclassification Assumption

The POLICE System reclassifies members from Service Retirement, Ordinary Disability, and Accidental Disability to WTC Accidental Disability or WTC Death if certain requirements are satisfied. The WTC benefit is payable to the member or the beneficiary of the member after death if the death has been determined to be caused by the WTC. Thus, reclassifications (or approvals) can occur before or after the death of the member.

To analyze the occurrence of spousal reclassification, GRS identified the members who would have been eligible for a WTC benefit, and then identified the members from that group whose beneficiary received a WTC benefit.

To be eligible for reclassification, GRS identified members who met the following conditions: (1) were active in the 6/30/2001 data (were active on September 11, 2001), (2) were still alive in the 6/30/2008 data, and (3) subsequently died prior to the 6/30/2013 data. The 6/30/2007 data was the first time WTC elements were included in the data set and thus deaths prior to that would not be reliable comparisons for future reclassifications. Using these conditions, a total of 43 members were used in the analysis.

We then grouped the data based on the WTC_elig field in the member's record and the RetCause field from the resulting beneficiary's record.

All 43 identified members had a WTC_elig field code of "WT", which means the member had filed paperwork to be eligible for WTC benefits. Of the 43, 10 had beneficiaries with a RetCause equal to 6 in the 6/30/2013 data (which means receiving a WTC benefit) and 33 had a non-WTC benefit. Thus, $23 \%$ of the members who died with a "WT" eligibility code have resulted in a WTC benefit.

No members without a "WT" in the WTC_elig field have been reclassified to a WTC benefit as of the 6/30/2013 data; so the reclassification occurrence has been $0 \%$ for members who had not filed paperwork.

Based on this data, GRS recommends an explicit assumption as to how many members will qualify for WTC benefits.

In our opinion, for members with a WTC_elig code of "WT", it would be reasonable to have an assumption of $25 \%$ to $35 \%$, for those who will receive a WTC benefit.

While there have been no members without a WTC_elig code of "WT" show up with a WTC benefit, there has been very little time elapsed and very few occurrences. Therefore, we believe it would be reasonable to have a reclassification assumption of $5-10 \%$ for this group. This assumption may need to be updated as more experience becomes available.

## POLICE WTC RECLASSIFICATION METHODOLOGY AND ASSUMPTIONS

GRS also has examined WTC Disability reclassification for participants of the POLICE System that reclassify immediately upon retirement, ultimately following retirement, or have not reclassified. For this analysis, member's Status and WTC_Elig code were collected over the eight-year period ending $6 / 30 / 2013$ for all participants in the POLICE system who were active as of $6 / 30 / 2001$. The WTC_Elig code TC (WTC Disability Benefit Approved) was used to indicate which members were approved to receive a WTC disability benefit. Members retiring under Service Retirement and Disability were looked at separately. Based on this information, it appears that a majority of the members who reclassify do so very soon after or in conjunction with retirement.

> NEW YORK CITY POLICE PENSION FUND
> RECLASSIFICATION TO WTC DISABILITY FOR THE EIGHT-YEAR PERIOD ENDING 6/30/2013


SECTION V<br>SUMMARY RESULTS BY SYSTEM: FIRE

## FIRE

## Findings and Recommendations

The results of the four-year and ten-year experience studies are shown in Appendix X. We have quantified the differences between actual experience and current actuarial assumptions as well as provided illustrative proposed assumptions we believe would be appropriate and reasonable. The table on the page following a summary of our recommendations provides a summary of the reconciliation in comparison to the current assumptions.

The following business rules were applied to the FIRE data. A general description of each rule may be found at the beginning of Section V.

## Business Rules

| Rule \# | Rule Name |
| :---: | :--- |
| 1 | Death Reclassification |
| 2 | Accidental Disability Reclassification |
| 3 | Ordinary Disability Reclassification |
| 4 | Status Continuity |
| 5 | Active-Inactive Reclassification \#1 |
| 6 | Active-Inactive Reclassification \#2 |
| 7 | Service Retirement Adjustment |
| 8 | Eligibility Adjustment |

Based on our analysis of FIRE, GRS recommends consideration of the following changes for future valuations:

1. Post-Retirement Mortality: We recommend updating the base mortality table to a System-specific mortality table developed using FIRE's actual experience for the core ages for retirees (ages 60 to 84). We also recommend using a full generational mortality assumption using projection scale MP-2014. A new table based on the results of this study and the application of MP-2014 is provided in the Appendix.
2. Salary and Overtime Assumptions: The following table gives the average actual increase and the average expected increase by category.

|  | 4-Year Period Ending FY2013 |  | 10-Year Period Ending <br> FY2013 |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Expected | Actual | Expected | Actual |
| Inflation | $2.50 \%$ | $2.00 \%$ | $2.50 \%$ | $2.43 \%$ |
| General Increase <br> above Inflation | $1.00 \%$ | $0.52 \%$ | $1.00 \%$ | $0.68 \%$ |
| Average <br> Additional Merit | $2.76 \%$ | $4.55 \%$ | $3.48 \%$ | $4.52 \%$ |
| Total Average <br> Salary Increase | $6.26 \%$ | $7.08 \%$ | $6.98 \%$ | $7.62 \%$ |
| Baseline <br> Overtime | $14.71 \%$ | $19.29 \%$ | $14.85 \%$ | $19.54 \%$ |
| Dual Service <br> Overtime | $15.46 \%$ | $25.12 \%$ | $17.67 \%$ | $30.41 \%$ |
| Overtime <br> "Spike" | $0.75 \%$ | $5.83 \%$ | $2.82 \%$ | $10.87 \%$ |

As shown, the actual merit increases were noticeably higher than assumed. As a result, we recommend the OA consider increasing the rates of the merit component of the salary increase assumption, especially for members with more than five years of service and have provided a revised assumption in the Appendix. However, since the rate of compensation increase is dependent on several external factors which include contract agreements and current human capital philosophies, we believe the OA is better positioned to reflect these factors and determine whether an update to this assumption is appropriate.

Experience also shows there is a behavior for members to incur additional overtime to increase their compensation in the year prior to retirement. This is most likely attributable to the members intentionally increasing their final compensation, or "spiking," for purposes of increasing the amount of their retirement benefit. Since "spiking" is a behavioral measure that is permitted by plan design and less related to compensation structure, we are recommending updating the assumption to a constant 24\% Overtime Pay Assumption for members eligible for a service retirement benefit, which equates to an approximate average $7 \%$ overtime "spiking" assumption. This recommendation, if incorporated by the OA in their assumption updates, would increase the liability and contribution requirements. Since it is more difficult for Tier 6 members to spike their overtime based on their averaging period, a lower assumption is likely more appropriate for this group.

It is our understanding that management is aware of an increase in overtime for the City's uniformed forces in recent years. The increase in Fire overtime is the result of a hiring freeze from 2008 to 2013 due to a hiring discrimination lawsuit (United States v. City of New York). The City has budgeted for an increase in Fire headcount and the Office of Management and Budget projects that the Fire Department will reach its budgeted headcount
by the end of FY 2018. Additionally, the Fire Department is also working to reduce discretionary overtime. The OA should monitor this assumption for changes in behavior to reflect in future valuations.
3. Disability Assumption: Experience indicates the OA could substantially reduce the rates of disability for ordinary disability and non-WTC accidental disabilities. However, the OA purposefully uses higher rates of disability than actual experience to reflect members who would have qualified for disability, but instead chose normal retirement because they would be eligible for a VSF benefit. Thus, we are recommending lower probabilities but not reflecting as large an adjustment as the experience would suggest.

The cost estimates shown below are illustrative only and are based on the change in normal cost plus a 19-year amortization of the change in AAL as if all recommendations in this report were adopted. As discussed on Page II-1, there are always a range of reasonable assumptions and thus actual costs will be determined by the OA once the OA and the Board finalize the assumption changes.

## Illustrative Cost Estimates

|  | FY 14 results (June 30, 2012 lag valuation) |  |  |
| :---: | :---: | :---: | :---: |
|  | AAL (\$ Millions) | Normal Cost (\$Millions) | Empoyer Contribution (\$ Millions) |
| Base Results (current Assumptions) | \$17,026 | \$418 | \$963 |
| Estimated Change for changes in |  |  |  |
| Mortality Assumptions | \$240 | \$9 | \$32 |
| Overtime Assumptions | \$307 | \$11 | \$39 |
| Other pay related and demographic assumptions | \$261 | \$46 | \$71 |
| Sub Total | \$17,834 | \$484 | \$1,105 |
| Estimated Change for $1 / 4 \%$ decrease in investment return assumption | \$456 | \$28 | \$57 |
| Total | \$18,290 | \$512 | \$1,162 |

## NEW YORK FIRE PENSION FUND EXPERIENCE STUDY RESULTS OVERVIEW

| $\begin{gathered} \text { Table } \\ \text { Number } \end{gathered}$ | Table Type | 4-YEAR PERIOD ENDING 6/30/2013* |  | 10-YEAR PERIOD ENDING 6/30/2013* |  |  | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Expected | Average Number of Decrements per Year | Ratio of Actual to |  | Average <br> Number of <br> Decrements per <br> Year |  |
|  |  |  |  | Expected | Proposed |  |  |
| Service Retiree Mortality |  | 102\% | 194 | 102\% | 93\% | 192 | The proposed assumption is a based on actual plan experience. Future mortality improvements will be projected using scale MP2014. |
| 1A | Men |  |  |  |  |  |  |
| 1B | By Year |  |  |  |  |  |  |
|  | Disabled Retiree Mortality | 95\% | 220 | 94\% | 93\% | 204 | The proposed assumption is a based on actual plan experience. |
| 2A | Men |  |  |  |  |  | Future mortality improvements will be projected using scale MP- |
| 2B | By Year |  |  |  |  |  | 2014. |
| 3A | Active Member Withdrawals | 91\% | 25 | 106\% | 106\% | 34 | Recommend no change. |
| 3B | By Year |  |  |  |  |  |  |
|  | Active Member Service RetirementsIn 1st Year of Eligibily | $38 \%$$62 \%$$53 \%$ | 14452 |  |  |  | Actual experience has been trending downward. We recommend a lower assumption. The proposed assumptions are $70 \%, 90 \%$, and |
| 4A |  |  |  | 71\% | 101\% | 28 | 85\% of the current assumption for members retiring in the first, |
| 4B | In 2nd Year of Eligibility |  |  | 96\% | 107\% | 6 | second, and after second year of eligibility, respectively, with other |
| 4C | After 2nd Year of Eligibility |  |  | 62\% | 73\% | 48 | small adjustments at specific ages as warranted. We anticipate the use |
|  | By Year |  |  |  |  |  | of the MSTATC field will lead to more accurate data in future experience studies. |
|  | Active Member Ordinary Mortality | 46\% | 4 | 61\% | 101\% | 5 | Actual experience has been trending downward. The proposed assumption is $60 \%$ of the current assumption. |
| 5A | Men |  |  |  |  |  |  |
| 5B | By Year |  |  |  |  |  |  |
| 6A | Active Member Accidental Mortality | 58\% | 3 | 73\% | 98\% | 4 | Actual experience has been trending downward. The proposed |
| 6B | By Year |  |  |  |  |  | assumption is $75 \%$ of the current assumption. |

# NEW YORK FIRE PENSION FUND EXPERIENCE STUDY RESULTS OVERVIEW 

| $\begin{gathered} \text { Table } \\ \text { Number } \end{gathered}$ | Table Type | 4-YEAR PERIOD ENDING 6/30/2013* |  | 10-YEAR PERIOD ENDING 6/30/2013* |  |  | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Ratio of Actual to |  | Average <br> Number of <br> Decrements per <br> Year |  |
|  |  | Expected | Average Number of Decrements per Year | Expected | Proposed |  |  |
| $\begin{aligned} & \text { 7A } \\ & \text { 7B } \end{aligned}$ | Active Member Ordinary Disability By Year | 6\% | 2 | 11\% | 13\% | 3 | Materially different results emerged than were expected. Expectations should be lowered. The proposed assumption is $80 \%$ of the current assumption. |
|  |  |  |  |  |  |  |  |
|  | Active Member Accidental Disability |  |  |  |  |  | Expectations should be moved towards experience in both cases. |
| 8A | WTC Eligible | 134\% | 328 | 152\% | 124\% | 365 | New rates, exponentially-fitted to actual data, are proposed for both |
| 8B | WTC Ineligible | 52\% | 6 | 45\% | 79\% | 4 | those eligible and not eligible for WTC Disability. |
| 8C | By Year |  |  |  |  |  |  |
|  | Salary Increases** | Expected | Actual | Expected | Proposed | Actual | Overall, salary experience has been higher than the current |
| 9A | Total | 6.26\% | 7.08\% | 6.98\% | 6.68\% | 7.62\% | assumption. |
| 9B | Merit Only | 3.26\% | 4.55\% | 3.98\% | 3.67\% | 4.52\% |  |
|  | General Increase over Inflation | 0.50\% | 0.52\% | 0.50\% | 0.50\% | 0.68\% |  |
| 9 C | By Year |  |  |  |  |  |  |
|  | Overtime Pay** | Expected | Actual | Expected | Proposed | Actual | Actual OT rates appear to increase over member's working career. |
| 10A | For All Years | 14.71\% | 19.29\% | 14.85\% | 17.00\% | 19.54\% | The current assumption assumes overtime rates will decline over time. |
| 10B | In Year Before Service Retirement | 15.46\% | 25.12\% | 17.67\% | 24.00\% | 30.41\% | We recommend a materially higher, flat dual-service OT assumption. |
| 10C | In Year Before Disability Retirement | 14.74\% | 20.56\% | 15.36\% | 20.00\% | 23.98\% |  |
| 10D | By Year |  |  |  |  |  |  |

* Four-year and eight-year periods ending 6/30/2011 were studied for the Withdrawal and Disability Decrements.
** For Salary Increases, average annual percentage increase in salary is shown. For Overtime Pay, average annual overtime pay is expressed as a percentage of salary.

New York City Retirement Systems
Actuarial Experience Investigation
For the Four-Year and Ten-Year Periods Ending June 30, 2013
NEW YORK FIRE DEPARTMENT FUND DISABILITY ASSUMPTIONS AND EXPERIENCE FOR THE EIGHT-YEAR PERIOD ENDING 6/30/2011


NEW YORK FIRE DEPARTMENT FUND
OVERTIME ASSUMPTIONS AND EXPERIENCE
FOR THE TEN-YEAR PERIOD ENDING 6/30/2013


## GRS’ APPROACH TO ASSIGNING STATUSES FOR FIRE ACTIVE TABLES

 FROM 6/30/2010 THROUGH 6/30/2013| GRS Status Code | Meaning | Associated Decrement | MSTATP* | MSTATC* |
| :---: | :---: | :---: | :---: | :---: |
| A | Active |  |  | 10 |
| B | Active-Inactive, Adjusted | Withdrawal |  | 20 |
| B1 | Beneficiary of Retiree | Beneficiary |  |  |
| B2 | Beneficiary of Ordinary Death | Beneficiary |  |  |
| B3 | Beneficiary of Accidental Death | Beneficiary |  |  |
| B4 | Beneficiary of Ordinary Disability | Beneficiary |  |  |
| B5 | Beneficiary of Accidental Disability | Beneficiary |  |  |
| C | Active-Inactive, Adjusted | Withdrawal |  | 20 |
| D | Deceased | Ordinary Mortality |  |  |
| D1 | Ordinary Death w/o Ben | Ordinary Mortality |  | 60 |
| D2 | Accidental Death w/o Ben | Accidental Mortality |  | 61 |
| F | Active-Inactive | Withdrawal |  | 20 |
| I | Ordinary Disability | Ordinary Disability |  | 70 |
| J | Accidental Disability | Accidental Disability |  | 71 |
| L | Lump Sum | Withdrawal |  |  |
| P | Duplicate |  |  |  |
| R | Service Retirement Year 1 | Retirement |  | 90 |
| R | Service Retirement Year 2 | Retirement |  | 91 |
| R | Service Retirement Year Ultimate | Retirement |  | 92 |
| R | Reduced Service Retirement | Retirement |  | 93 |
| S | Retiree from Vested | Retirement |  |  |
| T | Terminated Non-Vested | Withdrawal |  | 80 |
| U | 5-Year Out | Withdrawal |  |  |
| V | Deferred Vested | Withdrawal |  | 81 |
| WI | Missing Ordinary Disability | Ordinary Disability |  |  |
| WJ | Missing Accidental Disability | Accidental Disability |  |  |
| WR | Missing Services Retirement | Retirement |  |  |
| WS | Missing Retirement from Vested | Retirement |  |  |
| Z | Refunded | Withdrawal |  |  |

## GRS’ APPROACH TO ASSIGNING STATUSES FOR FIRE PENSIONER TABLES FROM 6/30/2010 THROUGH 6/30/2013

| GRS Status Code | Meaning | Associated Decrement | MSTATP* | MSTATC* | RetCause | PaycePen |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | Active |  |  |  |  |  |
| B | Active-Inactive, Adjusted | Withdrawal |  |  |  |  |
| B1 | Beneficiary of Retiree | Beneficiary |  |  | 0 or 3 | not 0 or 1 |
| B2 | Beneficiary of Ordinary Death | Beneficiary |  |  |  |  |
| B3 | Beneficiary of Accidental Death | Beneficiary |  |  | 4 or 6 | not 0 or 1 |
| B4 | Beneficiary of Ordinary Disability | Beneficiary |  |  | 2 | not 0 or 1 |
| B5 | Beneficiary of Accidental Disability | Beneficiary |  |  | 1 or 5 | not 0 or 1 |
| C | Active-Inactive, Adjusted | Withdrawal |  |  |  |  |
| D | Deceased | Mortality* |  | 60 |  |  |
| D1 | Ordinary Death w/o Ben | Mortality* |  |  |  |  |
| D2 | Accidental Death w/o Ben | Mortality* |  |  |  |  |
| F | Active-Inactive | Withdrawal |  |  |  |  |
| I | Ordinary Disability | Ordinary Disability |  |  | 2 | 0 or 1 |
| J | Accidental Disability | Accidental Disability |  |  | 1 | 0 or 1 |
| L | Lump Sum | Withdrawal |  |  |  |  |
| P | Duplicate |  |  |  |  |  |
| R | Service Retiree | Retirement |  |  | 3 | 0 or 1 |
| S | Retiree from Vested | Retirement |  |  | 0 | 0 or 1 |
| T | Terminated Non-Vested | Withdrawal |  |  |  |  |
| U | 5-Year Out | Withdrawal |  |  |  |  |
| V | Deferred Vested | Withdrawal | 70 | 10 | 0 |  |
| WI | Missing Ordinary Disability | Ordinary Disability |  |  |  |  |
| WJ | Missing Accidental Disability | Accidental Disability | 70 | 10 | 1 | 0 or 1 |
| WR | Missing Services Retirement | Retirement |  |  |  |  |
| WS | Missing Retirement from Vested | Retirement |  |  |  |  |
| Z | Refunded | Withdrawal |  | 80 |  |  |

* The mortality decrements are determined by the member's status in the previous year. For example, a disability retiree's mortality decrement would be Disabled Mortality.


## Business Rule 1: Death Reclassification

| Description: | Example: |  | 2006 | 2007 | 2008 | 2009 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| For a member who shows as a death in a given data file and shows a date of death in an earlier period, the death status was filled backwards until the fiscal year associated with the death date. | A member is identified as a death status in the 6/30/2009 data file with a Date of Death of $7 / 2 / 2006$. The member's 6/30/2007 status and all future statuses are updated to reflect the new Date of Death. | Initial | R | R | R | R |
|  |  |  |  |  | $\square$ | $\checkmark$ |
|  |  | Matured | R | D | D | D |


| Status | Fiscal Year Ended June 30, |  |  |  |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |  |
| No Status | -262 | -176 | -173 | -1 | -3 | -1 | -1 | -2 |  | -2 |  | -619 |
| A | -5 |  | -1 |  |  |  |  |  |  |  |  | -6 |
| B |  |  |  |  |  |  |  |  |  |  |  |  |
| B1 | -33 | -23 | -23 | -17 | -27 | -16 | -10 | -7 | -11 |  |  | -167 |
| B2 |  |  |  |  |  |  |  |  |  |  |  |  |
| B3 |  |  |  | -31 |  |  |  |  |  |  |  | -31 |
| B4 | -7 | -2 | -4 | -2 | -3 | -4 | -5 |  | -4 |  |  | -31 |
| B5 | -36 | -6 | -7 | -4 | -11 | -12 | -7 | -11 | -12 | -12 | -11 | -106 |
| C |  |  |  |  |  |  |  |  |  |  |  |  |
| D | 366 | 217 | 230 | 69 | 49 | 47 | 31 | 26 | 36 | 21 | 11 | 1,071 |
| D1 | -2 | -2 | -3 | -4 |  | -4 | -7 | -4 | -5 | -4 |  | -31 |
| D2 |  |  |  |  |  |  |  |  |  |  |  |  |
| F |  |  |  |  |  |  |  |  |  |  |  |  |
| I | -1 | -1 | -1 | -1 | -1 | -1 |  |  |  |  |  | -6 |
| J | -3 | -1 | -7 | -6 |  | -5 |  | -2 | -3 | -1 |  | -27 |
| L |  |  |  |  |  |  |  |  |  |  |  |  |
| P |  |  |  |  |  |  |  |  |  |  |  |  |
| R | -4 | -2 | -11 | -3 | -4 | -4 |  |  |  |  |  | -28 |
| S |  |  |  |  |  |  |  |  |  |  |  |  |
| T | -12 | -3 |  |  |  |  |  |  |  |  |  | -15 |
| U | -1 |  |  |  |  |  |  |  |  |  |  | -1 |
| V |  |  |  |  |  |  | -1 |  |  |  |  | -1 |
| WI |  |  |  |  |  |  |  |  |  |  |  |  |
| WJ |  |  |  |  |  |  |  |  |  |  |  |  |
| WR |  | -1 |  |  |  |  |  |  |  |  |  | -1 |
| WS |  |  |  |  |  |  |  |  |  |  |  |  |
| Z |  |  |  |  |  |  |  |  | -1 | -2 |  | -1 |
| Total |  |  |  |  |  |  |  |  |  |  |  |  |

Business Rule 2: Accidental Disability Reclassification

| Description: | Example: |  | 2002 | 2003 | 2004 | 2005 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| For members reclassifying to Accidental Disability (status code ' $J$ '), either after service retirement or after termination, GRS changed the record as though the member immediately retired under Accidental Disability. | An active member retires 8/22/2002 and is reclassified to Accidental Disability as of $6 / 30 / 2005$. The statuses for FYE 2003 and 2004 are changed to Accidental Disability. | Initial | A | R | R | J |
|  |  |  |  |  |  |  |
|  |  | Matured | A | J | J | J |



Business Rule 3: Ordinary Disability Reclassification

| Description: | Example: |  | 2001 | 2002 | 2003 | 2004 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| For members retiring under Ordinary Disability (status code 'I'), either after service retirement or after termination, GRS changed the record as though the member immediately retired under Ordinary Disability. | An active member retires 4/23/2002 and is reclassified to ordinary disability in FYE 2004. The statuses for FYE 2002 and 2003 are changed to Ordinary Disability. | Initial | A | R | R | I |
|  |  |  |  | - | 1 |  |
|  |  | Matured | A | I | 1 | I |


| Status | Fiscal Year Ended June 30, |  |  |  |  |  |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |  | 2011 |  | 2012 | 2013 |  |
| No Status | -2 | -2 | -1 | -1 | -1 | -1 | -1 |  |  |  |  |  |  | -9 |
| A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| B |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| B1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| B2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| B3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| B4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| B5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| C |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| D |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| D1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| D2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| F |  |  |  |  |  |  |  |  | -1 |  |  |  |  | -1 |
| I | 2 | 3 | 2 | 2 | 3 | 3 | 3 |  | 2 |  | 2 |  |  | 22 |
| J |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| L |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| P |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| R |  |  | -1 | -1 | -1 | -1 | -1 |  | -1 |  | -2 |  |  | -8 |
| S |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| T |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| U |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| V |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| WI |  |  |  |  | -1 | -1 | -1 |  |  |  |  |  |  | -3 |
| WJ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| WR |  | -1 |  |  |  |  |  |  |  |  |  |  |  | -1 |
| WS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Z |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

New York City Retirement Systems
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Business Rule 4: Status Continuity

| Description: | Example: |  | 2004 | 2005 | 2006 | 2007 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| In any three year period, if the first and last year's status matched, the middle year was also changed to be consistent. This rule was applied to statuses A, I, J, and R. | A record shows ordinary disability in 6/30/2004 and 6/30/2006 but beneficiary in $6 / 30 / 2005$. The 6/30/2005 status is changed to ordinary disability. | Initial | I | B3 | I | I |
|  |  |  |  | $\square$ |  |  |
|  |  | Matured | I | I | I | I |


| Status | Fiscal Year Ended June 30, |  |  |  |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |  |
| No Status |  |  |  |  |  |  |  |  |  |  |  |  |
| A | 2 |  |  |  |  |  |  |  |  |  |  | 2 |
| B |  |  |  |  |  |  |  |  |  |  |  |  |
| B1 |  |  |  |  |  |  |  |  |  |  |  |  |
| B2 |  |  |  |  |  |  |  |  |  |  |  |  |
| B3 |  |  |  |  |  |  |  |  |  |  |  |  |
| B4 |  |  |  |  |  |  |  |  |  |  |  |  |
| B5 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| C |  |  |  |  |  |  |  |  |  |  |  |  |
| D |  |  |  |  |  |  |  |  |  |  |  |  |
| D1 |  |  |  |  |  |  |  |  |  |  |  |  |
| D2 |  |  |  |  |  |  |  |  |  |  |  |  |
| F |  |  |  |  |  |  |  |  |  |  |  |  |
| I |  |  |  |  |  |  |  |  |  |  |  |  |
| J |  |  |  |  |  |  |  |  |  |  |  |  |
| L |  |  |  |  |  |  |  |  |  |  |  |  |
| P |  |  |  |  |  |  |  |  |  |  |  |  |
| R | 3 |  |  |  |  |  |  |  |  |  |  | 3 |
| S |  |  |  |  |  |  |  |  |  |  |  |  |
| T | -2 |  |  |  |  |  |  |  |  |  |  | -2 |
| U |  |  |  |  |  |  |  |  |  |  |  |  |
| V |  |  |  |  |  |  |  |  |  |  |  |  |
| WI |  |  |  |  |  |  |  |  |  |  |  |  |
| WJ |  |  |  |  |  |  |  |  |  |  |  |  |
| WR | -3 |  |  |  |  |  |  |  |  |  |  | -3 |
| WS |  |  |  |  |  |  |  |  |  |  |  |  |
| Z |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total |  |  |  |  |  |  |  |  |  |  |  |  |

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Business Rule 5: Active-Inactive Reclassification \#1

| Description: | Example: |  | 2008 | 2009 | 2010 | 2011 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Status B was introduced to differentiate activeinactive members that returned to service. Any active member that becomes active-inactive for a period and eventually returns to active service will have all active-inactive statuses changed to B. | An active member as of 6/30/2008 becomes Active-Inactive as of 6/30/2009. When the member returns to active status in 6/30/2011, all prior active-inactive years are changed to $B$. | Initial | A | F | F | A |
|  |  |  |  |  |  |  |
|  |  | Matured | A | B | B | A |

Business Rule 6: Active-Inactive Reclassification \#2

| Description: | Example: |  | 2010 | 2011 | 2012 | 2013 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Status C was introduced to differentiate activeinactive members in the final two years of the experience period. Any active member that becomes active-inactive during this period will have all activeinactive statuses changed to C . | An active member as of FYE 2011 becomes Active-Inactive as of FYE 2012. Based on this Rule, the member's status for FYE 2012 and 2013 is changed to C. | Initial | A | A | F | F |
|  |  |  |  |  | 7 | $\square$ |
|  |  | Matured | A | A | C | C |

Status B\&C were added to classify members as active in the reconcilation process but not include them in the salary analysis.

New York City Retirement Systems
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Impact of Business Rules 5 and 6


Status Changes Due to Maturation, Using Business Rules 1, 2, 3, 4, 5 and 6

| Status | Fiscal Year Ended June 30, |  |  |  |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |  |
| No Status | -291 | -185 | -176 | -2 | -4 | -2 | -2 | -2 |  | -2 |  | -666 |
| A | -5 |  | -1 | 2 |  |  |  |  |  |  |  | -4 |
| B |  |  |  | 1 |  | 11 | 23 | 12 | 11 | 6 |  | 64 |
| B1 | -33 | -23 | -23 | -17 | -27 | -16 | -10 | -7 | -11 |  |  | -167 |
| B2 |  |  |  |  |  |  |  |  |  |  |  |  |
| B3 | -39 | -39 | -39 | -31 |  |  |  |  |  |  |  | -148 |
| B4 | -7 | -2 | -4 | -2 | -3 | -4 | -5 |  | -4 |  |  | -31 |
| B5 | -36 | -6 | -7 | -4 | -11 | -12 | -7 | -11 | -12 | -12 | -11 | -129 |
| C |  |  |  |  |  |  |  |  |  | 2 | 12 | 14 |
| D | 366 | 217 | 230 | 69 | 49 | 47 | 31 | 26 | 36 | 21 | 11 | 1103 |
| D1 | -2 | -2 | -3 | -4 |  | -4 | -7 | -4 | -5 | -4 |  | -35 |
| D2 |  |  |  |  |  |  |  |  |  |  |  |  |
| F |  |  |  | -1 |  | -11 | -23 | -13 | -11 | -8 | -12 | -79 |
| I | 1 | 2 | 1 | 1 | 2 | 2 | 3 | 2 | 2 | 1 |  | 17 |
| J | 90 | 118 | 56 | -6 |  | -5 |  | -2 | 29 | 9 |  | 289 |
| L |  |  |  |  |  |  |  |  |  |  |  |  |
| R | -5 | -2 | -32 | -1 | -5 | -5 | -1 | -1 | -33 | -11 |  | -96 |
| S |  |  |  |  |  |  |  |  | -1 |  |  | -1 |
| T | -12 | -3 |  | -2 |  |  |  |  |  |  |  | -17 |
| U | -1 |  |  |  |  |  |  |  |  |  |  | -1 |
| V |  |  |  |  |  |  | -1 |  |  |  |  | -1 |
| WI |  |  |  |  | -1 | -1 | -1 |  |  |  |  | -3 |
| WJ | -26 | -73 | -2 |  |  |  |  |  |  |  |  | -101 |
| WR |  | -2 |  | -3 |  |  |  |  |  |  |  | -5 |
| WS |  |  |  |  |  |  |  |  |  |  |  |  |
| Y |  |  |  |  |  |  |  |  |  |  |  |  |
| Z |  |  |  |  |  |  |  |  | -1 | -2 |  | -3 |
| Total |  |  |  |  |  |  |  |  |  |  |  |  |

New York City Retirement Systems
Actuarial Experience Investigation
For the Four-Year and Ten-Year Periods Ending June 30, 2013
Status Counts after Maturation, Using Business Rules 1, 2, 3, 4, 5 and 6

| Status | Fiscal Year Ended June 30, |  |  |  |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |  |
| No Status | 6,496 | 5,564 | 4,822 | 4,196 | 3,740 | 3,152 | 2,837 | 3,093 | 3,105 | 3,128 | 3,008 | 43,141 |
| A | 10,898 | 11,328 | 11,498 | 11,640 | 11,529 | 11,585 | 11,459 | 11,079 | 10,649 | 10,266 | 10,022 | 121,953 |
| B |  |  |  | 1 |  | 11 | 23 | 12 | 11 | 6 |  | 64 |
| B1 | 1,311 | 1,218 | 1,093 | 972 | 845 | 726 | 631 | 521 | 437 | 360 | 311 | 8,425 |
| B2 | 1 |  |  |  |  |  |  |  |  |  |  | 1 |
| B3 | 594 | 582 | 568 | 568 | 561 | 560 | 553 | 590 | 578 | 563 | 556 | 6,273 |
| B4 | 15 | 15 | 13 | 12 | 12 | 12 | 12 | 15 | 13 | 14 | 15 | 148 |
| B5 | 21 | 22 | 22 | 23 | 23 | 22 | 17 | 26 | 21 | 24 | 26 | 247 |
| C |  |  |  |  |  |  |  |  |  | 2 | 12 | 14 |
| D | 5,333 | 5,870 | 6,372 | 6,932 | 7,489 | 8,030 | 8,558 | 9,064 | 9,627 | 10,121 | 10,606 | 88,002 |
| D1 |  | 1 | 2 | 5 | 6 | 7 | 7 | 7 | 10 | 3 |  | 48 |
| D2 | 21 | 24 | 28 | 31 | 31 | 31 | 33 | 33 | 33 | 33 | 37 | 335 |
| F | 5 | 5 |  |  |  | 3 | 7 | 10 | 5 | 4 | 4 | 43 |
| I | 1,548 | 1,489 | 1,442 | 1,388 | 1,339 | 1,287 | 1,219 | 1,167 | 1,112 | 1,058 | 1,007 | 14,056 |
| J | 7,052 | 7,260 | 7,569 | 7,796 | 8,061 | 8,283 | 8,460 | 8,635 | 8,763 | 8,943 | 9,074 | 89,896 |
| L |  |  |  |  |  |  | 1 |  |  |  |  | 1 |
| R | 6,205 | 6,454 | 6,516 | 6,422 | 6,309 | 6,159 | 6,013 | 5,869 | 5,755 | 5,591 | 5,439 | 66,732 |
| S | 33 | 34 | 34 | 33 | 31 | 28 | 28 | 31 | 32 | 38 | 37 | 359 |
| T | 66 | 80 | 104 | 61 | 95 | 173 | 210 | 13 | 16 | 9 | 10 | 837 |
| U | 89 | 89 | 94 | 94 | 94 | 94 | 94 |  |  |  |  | 648 |
| V | 16 | 13 | 19 | 20 | 31 | 33 | 34 | 33 | 30 | 30 | 33 | 292 |
| WI |  |  |  |  |  |  |  |  |  |  |  |  |
| WJ | 1 | 1 |  | 2 | 2 | 2 | 2 |  |  | 1 |  | 11 |
| WR | 481 | 147 |  | 2 |  |  |  |  |  |  |  | 630 |
| WS | 1 |  |  |  |  |  |  |  |  |  |  | 1 |
| Y | 10 | 2 | 2 |  |  |  |  |  |  |  |  | 14 |
| Z |  |  |  |  |  |  |  |  | 1 | 4 | 1 | 6 |
| Total |  |  |  |  |  |  |  |  |  |  |  | 442,177 |

## Development of WTC Reclassification Assumption

The FIRE System reclassifies members from Service Retirement, Ordinary Disability, and Accidental Disability to WTC Accidental Disability or WTC Death if certain requirements are satisfied. The WTC benefit is payable to the member or the beneficiary of the member after death if the death has been determined to be caused by the WTC. Thus, reclassifications (or approvals) can occur before or after the death of the member.

To analyze the occurrence of spousal reclassification, GRS identified the members who would have been eligible for a WTC benefit, and then identified the members from that group whose beneficiary received a WTC benefit.

To be eligible for reclassification, GRS identified members who met the following conditions: (1) were active in the 6/30/2001 data (were active on September 11, 2001), (2) were still alive in the $6 / 30 / 2008$ data, and (3) subsequently died prior to $6 / 30 / 2013$. The $6 / 30 / 2008$ data was the first time WTC elements were included in the data set and thus deaths prior to that would not be reliable comparisons for future reclassifications. Using these conditions, a total of 39 members were used in the analysis.

We then grouped the data based on the WTC_elig field in the member's record and the RetCause field from the resulting beneficiary's record.

Of the 39, 8 of the members had a "WTA" or blank WTC_elig field and of those 8 , none of the beneficiaries have been reclassified to a WTC benefit as of the 6/30/2013 data; so the reclassification occurrence has been $0 \%$ (albeit a very small data set).

The remaining 31 members all had a WTC_elig field code of "WTB," which means the member had filed paperwork to be eligible for WTC benefits and the application had been verified. Of the 31, 17 had beneficiaries with a RetCause equal to 6 in the 6/20/2013 data (which means they were receiving a WTC benefit) and 14 had a non-WTC benefit. Thus, $55 \%$ of the members who died with a WTA eligibility code have resulted in a WTC benefit.

Based on this data, GRS recommends an explicit assumption as to how many members will qualify for WTC benefits.

In our opinion, for members with a WTC_elig code of WT, it would be reasonable to have an assumption of $55 \%$ to $70 \%$, for those who will receive a WTC benefit.

While there have been no members without a WTC_elig code of "WT" show up with a WTC benefit, there has been very little time elapsed and very few occurrences. Therefore, we believe it would be reasonable to have a reclassification assumption of $5-15 \%$ for this group. This assumption may need to be updated as more experience becomes available.

## FIRE WTC RECLASSIFICATION METHODOLOGY AND ASSUMPTIONS

GRS also has examined WTC Disability reclassification for participants of the FIRE System that reclassify immediately upon retirement, ultimately following retirement, or have not reclassified. For this analysis, member's Status, WTC_Elig code, and Retirement Cause code were collected over the eight-year period ending 6/30/2013 for all participants in the FIRE system who were active as of 6/30/2001 and had filed an Application for a WTC benefit. Any WTC_Elig value was used to indicate which members had filed for a WTC disability benefit. Retirement Cause value 5 was used to indicate which members were in receipt of a WTC Disability benefit. Members retiring under Service Retirement and Disability were looked at separately. Based on this information, it appears that most members who do reclassify do so very soon after or in conjunction with retirement.

> NEW YORK CITY FIRE PENSION FUND RECLASSIFICATION TO WTC DISABILITY FOR THE EIGHT-YEAR PERIOD ENDING 6/30/2013

| Year of Retirement |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| First Year with RetCause = 5 | 2007 |  | 2008 |  | 2009 |  | 2010 |  | 2011 |  | 2012 |  | 2013 |  | Total |  |
|  | Ret | Dis | Ret | Dis | Ret | Dis | Ret | Dis | Ret | Dis | Ret | Dis | Ret | Dis | Ret | Dis |
| No occurrence | 89 | 308 | 42 | 214 | 38 | 164 | 42 | 155 | 89 | 146 | 52 | 141 | 90 | 111 | 442 | 1,239 |
| 2007 |  | 29 |  |  |  |  |  |  |  |  |  |  |  |  | 0 | 29 |
| 2008 |  | 20 |  | 115 |  |  |  |  |  |  |  |  |  |  | 0 | 135 |
| 2009 |  | 8 |  | 17 |  | 115 |  |  |  |  |  |  |  |  | 0 | 140 |
| 2010 |  | 13 |  | 6 |  | 26 |  | 125 |  |  |  |  |  |  | 0 | 170 |
| 2011 |  | 22 |  | 12 |  | 11 |  | 17 |  | 128 |  |  |  |  | 0 | 190 |
| 2012 | 1 | 4 |  | 5 | 2 | 3 | 2 | 1 |  | 18 |  | 130 |  |  | 5 | 161 |
| 2013 | 3 | 3 | 1 | 2 | 1 | 1 |  | 1 |  | 3 |  | 5 |  | 111 | 5 | 126 |
| Subtotal | 4 | 99 | 1 | 157 | 3 | 156 | 2 | 144 | 0 | 149 | 0 | 135 | 0 | 111 | 10 | 951 |
| Total | 93 | 407 | 43 | 371 | 41 | 320 | 44 | 299 | 89 | 295 | 52 | 276 | 90 | 222 | 452 | 2,190 |


| Reclassification | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Immediate Ret | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% | 0\% |
| Immediate Dis | 6\% | 28\% | 32\% | 36\% | 33\% | 40\% | 36\% | 29\% |
| Ultimate Ret | 1\% | 0\% | 1\% | 1\% | 0\% | 0\% |  | 0\% |
| Ultimate Dis | 14\% | 10\% | 11\% | 6\% | 5\% | 2\% |  | 7\% |
| None Ret | 18\% | 10\% | 11\% | 12\% | 23\% | 16\% | 29\% | 17\% |
| None Dis | 62\% | 52\% | 45\% | 45\% | 38\% | 43\% | 36\% | 47\% |
| Total | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% | 100\% |


| $\begin{gathered} \text { Table } \\ \text { Number } \\ \hline \end{gathered}$ | Table Type | NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL EXPERIENCE STUDY RESULTS OVERVIEW |  |  |  |  | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 4-YEAR PERIOD ENDING 6/30/2013* |  | 10-YEAR PERIOD ENDING 6/30/2013* |  |  |  |
|  |  |  | Average Number of Decrements per Year | Ratio of Actual to |  | Average Number of Decrements per Year |  |
|  |  | Expected |  | Expected | Proposed |  |  |
|  | Service Retiree Mortality |  |  |  |  |  | The proposed assumption is based on actual plan experience. |
| 1A | Men | 93\% | 1237 | 97\% | 97\% | 1265 | Future mortality improvements will be projected using scale MP- |
| 1B | Women | 93\% | 1321 | 97\% | 99\% | 1336 | 2014. The following NYCERS groups were combined for this |
| 1 C | Men \& Women | 93\% | 2557 | 97\% | 98\% | 2601 | study: General, Transit, Sanitation, Corrections, and TBTA. |
| 1D | By Year |  |  |  |  |  |  |
|  | Disabled Retiree Mortality |  |  |  |  |  | The proposed assumption is based on actual plan experience. |
| 2A | Men | 93\% | 126 | 95\% | 108\% | 123 | Future mortality improvements will be projected using scale MP2014. The following NYCERS groups were combined for this study: General, Transit, Sanitation, Corrections, and TBTA. |
| 2B | Women | 116\% | 94 | 119\% | 101\% | 88 |  |
| 2 C | Men \& Women | 102\% | 219 | 104\% | 105\% | 211 |  |
| 2D | By Year |  |  |  |  |  |  |
|  | Active Member Withdrawals |  |  |  |  |  | Actual experience is higher than expected. We recommend raising the current assumption. |
| 3A | Men | 131\% | 1385 | 132\% | 114\% | 1393 |  |
| 3B | Women | 140\% | 2047 | 139\% | 120\% | 1994 |  |
| 3 C | Men \& Women | 136\% | 3432 | 136\% | 118\% | 3387 |  |
| 3D | By Year |  |  |  |  |  |  |
|  | Active Member Service Retirements <br> In 1st Year of Eligibility |  |  |  |  |  | Unreduced retirements were expected to roughly double over the period. Generally, members have been delaying retirements, consistent with national trends. Consider extending maximum retirement age from 70 to 75 . |
| 4A | Total | 68\% | 844 | 82\% | 83\% | 908 |  |
| 4B | Elected | 76\% | 182 | 70\% | 79\% | 151 |  |
| 4 C | Mandated | 66\% | 662 | 84\% | 84\% | 757 |  |
|  | In 2nd Year of Eligibility |  |  |  |  |  |  |
| 5A | Total | 68\% | 387 | 75\% | 75\% | 360 |  |
| 5B | Elected | 80\% | 63 | 75\% | 75\% | 50 |  |
| 5 C | Mandated | 66\% | 325 | 75\% | 75\% | 310 |  |
|  | After 2nd Year of Eligibility |  |  |  |  |  |  |
| 6A | Total | 51\% | 1830 | 49\% | 49\% | 1414 |  |
| 6B | Elected | 81\% | 191 | 77\% | 77\% | 120 |  |
| ${ }_{6 C}$ | Mandated | 49\% | 1639 | 47\% | 47\% | 1295 |  |
| 6 D | By Year |  |  |  |  |  |  |
|  | Reduced Service Retirements |  |  |  |  |  | There were more reduced retirements than expected. We recommend raising the current assumption. |
| 7 A | Total | 167\% | 755 | 91\% | 67\% | 383 |  |
| 7B | By Year |  |  |  |  |  |  |



NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL
WITHDRAWAL ASSUMPTIONS AND EXPERIENCE
FOR THE EIGHT-YEAR PERIOD ENDING 6/30/2011


## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL

RETIREMENT ASSUMPTIONS AND EXPERIENCE
FOR THE FOUR-YEAR PERIOD ENDING 6/30/2013



NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL
RETIREMENT ASSUMPTIONS AND EXPERIENCE
FOR THE FOUR-YEAR PERIOD ENDING 6/30/2013


NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL
RETIREMENT ASSUMPTIONS AND EXPERIENCE
FOR THE FOUR-YEAR PERIOD ENDING 6/30/2013


NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL OVERTIME ASSUMPTIONS AND EXPERIENCE
FOR THE TEN-YEAR PERIOD ENDING 6/30/2013


## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

|  | TABLE 1A |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013Expected DeathsActual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 0 | N/A | 0.1597\% | 0.1800\% | 0 | 0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.2033\% | 0.1964\% | 0 | 0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.2442\% | 0.2140\% | 0 | 0 | 0\% | 0\% |
| 44 | 0 | 3 | 0.000000 | 0.2825\% | 0.2329\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 7 | 0.000000 | 0.3182\% | 0.2531\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 8 | 0.000000 | 0.3473\% | 0.2744\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 15 | 0.000000 | 0.3729\% | 0.2968\% | 0.1 | 0.0 | 0\% | 0\% |
| 48 | 0 | 24 | 0.000000 | 0.3954\% | 0.3206\% | 0.1 | 0.1 | 0\% | 0\% |
| 49 | 0 | 34 | 0.000000 | 0.4146\% | 0.3455\% | 0.1 | 0.1 | 0\% | 0\% |
| 50 | 1 | 65 | 0.015385 | 0.4307\% | 0.3720\% | 0.3 | 0.2 | 357\% | 414\% |
| 51 | 0 | 199 | 0.000000 | 0.4875\% | 0.4006\% | 1.0 | 0.8 | 0\% | 0\% |
| 52 | 0 | 250 | 0.000000 | 0.5460\% | 0.4320\% | 1.4 | 1.1 | 0\% | 0\% |
| 53 | 1 | 306 | 0.003268 | 0.6110\% | 0.4669\% | 1.9 | 1.4 | 53\% | 70\% |
| 54 | 2 | 366 | 0.005464 | 0.6785\% | 0.5058\% | 2.5 | 1.9 | 81\% | 108\% |
| 55 | 2 | 501 | 0.003992 | 0.7545\% | 0.5494\% | 3.8 | 2.8 | 53\% | 73\% |
| 56 | 9 | 840 | 0.010714 | 0.8125\% | 0.5983\% | 6.8 | 5.0 | 132\% | 179\% |
| 57 | 13 | 1,151 | 0.011295 | 0.8712\% | 0.6533\% | 10.0 | 7.5 | 130\% | 173\% |
| 58 | 11 | 1,478 | 0.007442 | 0.9309\% | 0.7148\% | 13.8 | 10.6 | 80\% | 104\% |
| 59 | 22 | 1,759 | 0.012507 | 0.9834\% | 0.7836\% | 17.3 | 13.8 | 127\% | 160\% |
| 60 | 28 | 2,112 | 0.013258 | 1.0360\% | 0.8603\% | 21.9 | 18.2 | 128\% | 154\% |
| 61 | 45 | 2,447 | 0.018390 | 1.1527\% | 0.9456\% | 28.2 | 23.1 | 160\% | 194\% |
| 62 | 33 | 3,215 | 0.010264 | 1.2582\% | 1.0393\% | 40.5 | 33.4 | 82\% | 99\% |
| 63 | 52 | 4,301 | 0.012090 | 1.3720\% | 1.1423\% | 59.0 | 49.1 | 88\% | 106\% |
| 64 | 73 | 4,456 | 0.016382 | 1.4726\% | 1.2554\% | 65.6 | 55.9 | 111\% | 130\% |
| 65 | 78 | 4,539 | 0.017184 | 1.5702\% | 1.3799\% | 71.3 | 62.6 | 109\% | 125\% |
| 66 | 67 | 4,631 | 0.014468 | 1.7139\% | 1.5166\% | 79.4 | 70.2 | 84\% | 95\% |
| 67 | 71 | 4,931 | 0.014399 | 1.8447\% | 1.6669\% | 91.0 | 82.2 | 78\% | 86\% |
| 68 | 72 | 5,082 | 0.014168 | 1.9597\% | 1.8320\% | 99.6 | 93.1 | 72\% | 77\% |
| 69 | 95 | 5,054 | 0.018797 | 2.0894\% | 2.0136\% | 105.6 | 101.8 | 90\% | 93\% |
| 70 | 99 | 4,937 | 0.020053 | 2.2013\% | 2.2131\% | 108.7 | 109.3 | 91\% | 91\% |
| 71 | 120 | 4,728 | 0.025381 | 2.3984\% | 2.4324\% | 113.4 | 115.0 | 106\% | 104\% |
| 72 | 132 | 4,561 | 0.028941 | 2.5999\% | 2.6735\% | 118.6 | 121.9 | 111\% | 108\% |
| 73 | 100 | 4,446 | 0.022492 | 2.8053\% | 2.9384\% | 124.7 | 130.6 | 80\% | 77\% |
| 74 | 128 | 4,202 | 0.030462 | 3.0149\% | 3.2295\% | 126.7 | 135.7 | 101\% | 94\% |
| 75 | 117 | 4,075 | 0.028712 | 3.2551\% | 3.5496\% | 132.6 | 144.6 | 88\% | 81\% |
| 76 | 148 | 3,906 | 0.037890 | 3.7527\% | 3.9013\% | 146.6 | 152.4 | 101\% | 97\% |
| 77 | 153 | 3,695 | 0.041407 | 4.2954\% | 4.2879\% | 158.7 | 158.4 | 96\% | 97\% |
| 78 | 145 | 3,553 | 0.040811 | 4.8575\% | 4.7128\% | 172.6 | 167.4 | 84\% | 87\% |
| 79 | 151 | 3,429 | 0.044036 | 5.4395\% | 5.1798\% | 186.5 | 177.6 | 81\% | 85\% |
| 80 | 179 | 3,289 | 0.054424 | 6.0416\% | 5.6931\% | 198.7 | 187.2 | 90\% | 96\% |
| 81 | 204 | 3,149 | 0.064782 | 6.6973\% | 6.2572\% | 210.9 | 197.0 | 97\% | 104\% |
| 82 | 202 | 3,000 | 0.067333 | 7.3631\% | 6.8772\% | 220.9 | 206.3 | 91\% | 98\% |
| 83 | 211 | 2,825 | 0.074690 | 7.9745\% | 7.5587\% | 225.3 | 213.5 | 94\% | 99\% |
| 84 | 220 | 2,653 | 0.082925 | 8.6555\% | 8.3077\% | 229.6 | 220.4 | 96\% | 100\% |
| 85 | 201 | 2,381 | 0.084418 | 9.2719\% | 9.1310\% | 220.8 | 217.4 | 91\% | 92\% |
| 86 | 213 | 2,106 | 0.101140 | 10.4648\% | 10.0358\% | 220.4 | 211.4 | 97\% | 101\% |
| 87 | 193 | 1,828 | 0.105580 | 11.7953\% | 11.0303\% | 215.6 | 201.6 | 90\% | 96\% |
| 88 | 178 | 1,579 | 0.112730 | 13.1900\% | 12.1233\% | 208.3 | 191.4 | 85\% | 93\% |
| 89 | 171 | 1,362 | 0.125551 | 14.5331\% | 13.3246\% | 197.9 | 181.5 | 86\% | 94\% |
| 90 | 190 | 1,126 | 0.168739 | 16.0483\% | 14.6450\% | 180.7 | 164.9 | 105\% | 115\% |
| 91 | 146 | 893 | 0.163494 | 17.8244\% | 16.0962\% | 159.2 | 143.7 | 92\% | 102\% |
| 92 | 141 | 744 | 0.189516 | 19.7255\% | 17.6912\% | 146.8 | 131.6 | 96\% | 107\% |
| 93 | 114 | 571 | 0.199650 | 21.4517\% | 19.4443\% | 122.5 | 111.0 | 93\% | 103\% |
| 94 | 103 | 459 | 0.224401 | 23.1923\% | 21.3710\% | 106.5 | 98.1 | 97\% | 105\% |
| 95 | 92 | 371 | 0.247978 | 25.3168\% | 23.4887\% | 93.9 | 87.1 | 98\% | 106\% |
| 96 | 66 | 253 | 0.260870 | 27.1711\% | 25.8163\% | 68.7 | 65.3 | 96\% | 101\% |
| 97 | 60 | 186 | 0.322581 | 28.9556\% | 28.3745\% | 53.9 | 52.8 | 111\% | 114\% |
| 98 | 26 | 116 | 0.224138 | 30.9964\% | 31.1862\% | 36.0 | 36.2 | 72\% | 72\% |
| 99 | 23 | 75 | 0.306667 | 32.6018\% | 34.2765\% | 24.5 | 25.7 | 94\% | 89\% |
| Subtotal | 4,901 | 118,272 |  |  |  | 5,251.0 | 4,992.5 | 93\% | 98\% |
| 100 or more | 45 | 125 | 0.360000 | 37.1685\% | 45.5092\% | 46.5 | 56.9 | 97\% | 79\% |
| Total | 4,946 | 118,397 |  |  |  | 5,297.4 | 5,049.4 | 93\% | 98\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL MORTALITY EXPERIENCE OF SERVICE RETIREES WOMEN

|  | TABLE 1B |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013 <br> Expected Deaths <br> Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 0 | N/A | 0.0783\% | 0.1485\% | 0 | 0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.0868\% | 0.1594\% | 0 | 0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.0975\% | 0.1702\% | 0 | 0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.1105\% | 0.1810\% | 0 | 0 | 0\% | 0\% |
| 45 | 0 | 1 | 0.000000 | 0.1251\% | 0.1918\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | , | 0.000000 | 0.1417\% | 0.2024\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 1 | 0.000000 | 0.1603\% | 0.2130\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 2 | 0.000000 | 0.1817\% | 0.2231\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 12 | 0.000000 | 0.2048\% | 0.2329\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 19 | 0.000000 | 0.2307\% | 0.2471\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 31 | 0.000000 | 0.2622\% | 0.2656\% | 0.1 | 0.1 | 0\% | 0\% |
| 52 | 0 | 39 | 0.000000 | 0.2990\% | 0.2885\% | 0.1 | 0.1 | 0\% | 0\% |
| 53 | 0 | 42 | 0.000000 | 0.3392\% | 0.3158\% | 0.1 | 0.1 | 0\% | 0\% |
| 54 | 0 | 44 | 0.000000 | 0.3835\% | 0.3474\% | 0.2 | 0.2 | 0\% | 0\% |
| 55 | 1 | 137 | 0.007299 | 0.4321\% | 0.3835\% | 0.6 | 0.5 | 169\% | 190\% |
| 56 | 2 | 500 | 0.004000 | 0.5051\% | 0.4239\% | 2.5 | 2.1 | 79\% | 94\% |
| 57 | 7 | 865 | 0.008092 | 0.5811\% | 0.4687\% | 5.0 | 4.1 | 139\% | 173\% |
| 58 | 6 | 1,281 | 0.004684 | 0.6577\% | 0.5178\% | 8.4 | 6.6 | 71\% | 90\% |
| 59 | 6 | 1,654 | 0.003628 | 0.7386\% | 0.5714\% | 12.2 | 9.5 | 49\% | 63\% |
| 60 | 20 | 2,113 | 0.009465 | 0.8236\% | 0.6294\% | 17.4 | 13.3 | 115\% | 150\% |
| 61 | 22 | 2,564 | 0.008580 | 0.9145\% | 0.6918\% | 23.4 | 17.7 | 94\% | 124\% |
| 62 | 31 | 3,420 | 0.009064 | 0.9912\% | 0.7604\% | 33.9 | 26.0 | 91\% | 119\% |
| 63 | 46 | 4,906 | 0.009376 | 1.0664\% | 0.8357\% | 52.3 | 41.0 | 88\% | 112\% |
| 64 | 48 | 5,386 | 0.008912 | 1.1462\% | 0.9186\% | 61.7 | 49.5 | 78\% | 97\% |
| 65 | 60 | 5,554 | 0.010803 | 1.2310\% | 1.0096\% | 68.4 | 56.1 | 88\% | 107\% |
| 66 | 62 | 5,756 | 0.010771 | 1.3217\% | 1.1097\% | 76.1 | 63.9 | 81\% | 97\% |
| 67 | 65 | 5,932 | 0.010958 | 1.4235\% | 1.2197\% | 84.4 | 72.4 | 77\% | 90\% |
| 68 | 71 | 6,026 | 0.011782 | 1.5303\% | 1.3406\% | 92.2 | 80.8 | 77\% | 88\% |
| 69 | 79 | 5,969 | 0.013235 | 1.6051\% | 1.4735\% | 95.8 | 88.0 | 82\% | 90\% |
| 70 | 111 | 5,762 | 0.019264 | 1.6732\% | 1.6195\% | 96.4 | 93.3 | 115\% | 119\% |
| 71 | 96 | 5,494 | 0.017474 | 1.8431\% | 1.7800\% | 101.3 | 97.8 | 95\% | 98\% |
| 72 | 67 | 5,292 | 0.012661 | 2.0222\% | 1.9565\% | 107.0 | 103.5 | 63\% | 65\% |
| 73 | 91 | 5,019 | 0.018131 | 2.1798\% | 2.1504\% | 109.4 | 107.9 | 83\% | 84\% |
| 74 | 117 | 4,664 | 0.025086 | 2.3496\% | 2.3635\% | 109.6 | 110.2 | 107\% | 106\% |
| 75 | 88 | 4,329 | 0.020328 | 2.4953\% | 2.5978\% | 108.0 | 112.5 | 81\% | 78\% |
| 76 | 95 | 3,993 | 0.023792 | 2.8182\% | 2.8553\% | 112.5 | 114.0 | 84\% | 83\% |
| 77 | 104 | 3,891 | 0.026728 | 3.1667\% | 3.1383\% | 123.2 | 122.1 | 84\% | 85\% |
| 78 | 124 | 3,808 | 0.032563 | 3.4923\% | 3.4494\% | 133.0 | 131.4 | 93\% | 94\% |
| 79 | 123 | 3,702 | 0.033225 | 3.8179\% | 3.7913\% | 141.3 | 140.4 | 87\% | 88\% |
| 80 | 132 | 3,593 | 0.036738 | 4.1435\% | 4.1671\% | 148.9 | 149.7 | 89\% | 88\% |
| 81 | 144 | 3,488 | 0.041284 | 4.6586\% | 4.5802\% | 162.5 | 159.8 | 89\% | 90\% |
| 82 | 160 | 3,433 | 0.046606 | 5.1835\% | 5.0341\% | 177.9 | 172.8 | 90\% | 93\% |
| 83 | 167 | 3,280 | 0.050915 | 5.7181\% | 5.5331\% | 187.6 | 181.5 | 89\% | 92\% |
| 84 | 176 | 3,190 | 0.055172 | 6.2626\% | 6.0816\% | 199.8 | 194.0 | 88\% | 91\% |
| 85 | 230 | 3,135 | 0.073365 | 6.8720\% | 6.6844\% | 215.4 | 209.6 | 107\% | 110\% |
| 86 | 218 | 2,947 | 0.073974 | 7.9002\% | 7.3469\% | 232.8 | 216.5 | 94\% | 101\% |
| 87 | 236 | 2,781 | 0.084862 | 8.9443\% | 8.0752\% | 248.7 | 224.6 | 95\% | 105\% |
| 88 | 228 | 2,620 | 0.087023 | 9.9247\% | 8.8756\% | 260.0 | 232.5 | 88\% | 98\% |
| 89 | 259 | 2,367 | 0.109421 | 10.9930\% | 9.7553\% | 260.2 | 230.9 | 100\% | 112\% |
| 90 | 254 | 2,033 | 0.124939 | 11.9814\% | 10.7223\% | 243.6 | 218.0 | 104\% | 117\% |
| 91 | 223 | 1,785 | 0.124930 | 13.6802\% | 11.7851\% | 244.2 | 210.4 | 91\% | 106\% |
| 92 | 223 | 1,531 | 0.145656 | 15.3234\% | 12.9532\% | 234.6 | 198.3 | 95\% | 112\% |
| 93 | 206 | 1,266 | 0.162717 | 17.0656\% | 14.2372\% | 216.1 | 180.2 | 95\% | 114\% |
| 94 | 182 | 1,092 | 0.166667 | 18.5767\% | 15.6484\% | 202.9 | 170.9 | 90\% | 107\% |
| 95 | 173 | 874 | 0.197941 | 20.0298\% | 17.1994\% | 175.1 | 150.3 | 99\% | 115\% |
| 96 | 134 | 673 | 0.199108 | 21.1824\% | 18.9042\% | 142.6 | 127.2 | 94\% | 105\% |
| 97 | 132 | 522 | 0.252874 | 22.3611\% | 20.7780\% | 116.7 | 108.5 | 113\% | 122\% |
| 98 | 75 | 343 | 0.218659 | 23.0718\% | 22.8376\% | 79.1 | 78.3 | 95\% | 96\% |
| 99 | 76 | 246 | 0.308943 | 23.4718\% | 25.1012\% | 57.7 | 61.7 | 132\% | 123\% |
| Subtotal | 5,170 | 139,408 |  |  |  | 5,583.2 | 5,140.8 | 93\% | 101\% |
| 100 or more | 113 | 392 | 0.288265 | 25.4498\% | 33.3297\% | 99.8 | 130.7 | 113\% | 86\% |
| Total | 5,283 | 139,800 |  |  |  | 5,683.0 | 5,271.4 | 93\% | 100\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL MORTALITY EXPERIENCE OF SERVICE RETIREES MEN AND WOMEN

|  | TABLE 1C |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 44 | 0 | 3 | 0.000000 | 0.2825\% | 0.2329\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 8 | 0.000000 | 0.2941\% | 0.2454\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 9 | 0.000000 | 0.3245\% | 0.2664\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 16 | 0.000000 | 0.3596\% | 0.2916\% | 0.1 | 0.0 | 0\% | 0\% |
| 48 | 0 | 26 | 0.000000 | 0.3790\% | 0.3131\% | 0.1 | 0.1 | 0\% | 0\% |
| 49 | 0 | 46 | 0.000000 | 0.3599\% | 0.3162\% | 0.2 | 0.1 | 0\% | 0\% |
| 50 | 1 | 84 | 0.011905 | 0.3855\% | 0.3437\% | 0.3 | 0.3 | 309\% | 346\% |
| 51 | 0 | 230 | 0.000000 | 0.4571\% | 0.3824\% | 1.1 | 0.9 | 0\% | 0\% |
| 52 | 0 | 289 | 0.000000 | 0.5127\% | 0.4126\% | 1.5 | 1.2 | 0\% | 0\% |
| 53 | 1 | 348 | 0.002874 | 0.5782\% | 0.4487\% | 2.0 | 1.6 | 50\% | 64\% |
| 54 | 2 | 410 | 0.004878 | 0.6468\% | 0.4888\% | 2.7 | 2.0 | 75\% | 100\% |
| 55 | 3 | 638 | 0.004702 | 0.6853\% | 0.5138\% | 4.4 | 3.3 | 69\% | 92\% |
| 56 | 11 | 1,340 | 0.008209 | 0.6978\% | 0.5332\% | 9.4 | 7.1 | 118\% | 154\% |
| 57 | 20 | 2,016 | 0.009921 | 0.7467\% | 0.5741\% | 15.1 | 11.6 | 133\% | 173\% |
| 58 | 17 | 2,759 | 0.006162 | 0.8041\% | 0.6233\% | 22.2 | 17.2 | 77\% | 99\% |
| 59 | 28 | 3,413 | 0.008204 | 0.8648\% | 0.6808\% | 29.5 | 23.2 | 95\% | 121\% |
| 60 | 48 | 4,225 | 0.011361 | 0.9298\% | 0.7448\% | 39.3 | 31.5 | 122\% | 153\% |
| 61 | 67 | 5,011 | 0.013371 | 1.0308\% | 0.8157\% | 51.7 | 40.9 | 130\% | 164\% |
| 62 | 64 | 6,635 | 0.009646 | 1.1206\% | 0.8955\% | 74.4 | 59.4 | 86\% | 108\% |
| 63 | 98 | 9,207 | 0.010644 | 1.2092\% | 0.9789\% | 111.3 | 90.1 | 88\% | 109\% |
| 64 | 121 | 9,842 | 0.012294 | 1.2940\% | 1.0711\% | 127.4 | 105.4 | 95\% | 115\% |
| 65 | 138 | 10,093 | 0.013673 | 1.3835\% | 1.1761\% | 139.6 | 118.7 | 99\% | 116\% |
| 66 | 129 | 10,387 | 0.012419 | 1.4966\% | 1.2911\% | 155.4 | 134.1 | 83\% | 96\% |
| 67 | 136 | 10,863 | 0.012520 | 1.6147\% | 1.4227\% | 175.4 | 154.5 | 78\% | 88\% |
| 68 | 143 | 11,108 | 0.012874 | 1.7268\% | 1.5654\% | 191.8 | 173.9 | 75\% | 82\% |
| 69 | 174 | 11,023 | 0.015785 | 1.8271\% | 1.7211\% | 201.4 | 189.7 | 86\% | 92\% |
| 70 | 210 | 10,699 | 0.019628 | 1.9169\% | 1.8934\% | 205.1 | 202.6 | 102\% | 104\% |
| 71 | 216 | 10,222 | 0.021131 | 2.0999\% | 2.0818\% | 214.7 | 212.8 | 101\% | 102\% |
| 72 | 199 | 9,853 | 0.020197 | 2.2896\% | 2.2884\% | 225.6 | 225.5 | 88\% | 88\% |
| 73 | 191 | 9,465 | 0.020180 | 2.4736\% | 2.5205\% | 234.1 | 238.6 | 82\% | 80\% |
| 74 | 245 | 8,866 | 0.027634 | 2.6649\% | 2.7740\% | 236.3 | 245.9 | 104\% | 100\% |
| 75 | 205 | 8,404 | 0.024393 | 2.8637\% | 3.0593\% | 240.7 | 257.1 | 85\% | 80\% |
| 76 | 243 | 7,899 | 0.030763 | 3.2803\% | 3.3725\% | 259.1 | 266.4 | 94\% | 91\% |
| 77 | 257 | 7,586 | 0.033878 | 3.7165\% | 3.6983\% | 281.9 | 280.6 | 91\% | 92\% |
| 78 | 269 | 7,361 | 0.036544 | 4.1513\% | 4.0592\% | 305.6 | 298.8 | 88\% | 90\% |
| 79 | 274 | 7,131 | 0.038424 | 4.5977\% | 4.4590\% | 327.9 | 318.0 | 84\% | 86\% |
| 80 | 311 | 6,882 | 0.045190 | 5.0506\% | 4.8964\% | 347.6 | 337.0 | 89\% | 92\% |
| 81 | 348 | 6,637 | 0.052433 | 5.6259\% | 5.3759\% | 373.4 | 356.8 | 93\% | 98\% |
| 82 | 362 | 6,433 | 0.056272 | 6.1999\% | 5.8937\% | 398.8 | 379.1 | 91\% | 95\% |
| 83 | 378 | 6,105 | 0.061916 | 6.7622\% | 6.4704\% | 412.8 | 395.0 | 92\% | 96\% |
| 84 | 396 | 5,843 | 0.067773 | 7.3491\% | 7.0924\% | 429.4 | 414.4 | 92\% | 96\% |
| 85 | 431 | 5,516 | 0.078136 | 7.9079\% | 7.7405\% | 436.2 | 427.0 | 99\% | 101\% |
| 86 | 431 | 5,053 | 0.085296 | 8.9691\% | 8.4676\% | 453.2 | 427.9 | 95\% | 101\% |
| 87 | 429 | 4,609 | 0.093079 | 10.0751\% | 9.2472\% | 464.4 | 426.2 | 92\% | 101\% |
| 88 | 406 | 4,199 | 0.096690 | 11.1526\% | 10.0969\% | 468.3 | 424.0 | 87\% | 96\% |
| 89 | 430 | 3,729 | 0.115312 | 12.2860\% | 11.0590\% | 458.1 | 412.4 | 94\% | 104\% |
| 90 | 444 | 3,159 | 0.140551 | 13.4310\% | 12.1205\% | 424.3 | 382.9 | 105\% | 116\% |
| 91 | 369 | 2,678 | 0.137789 | 15.0621\% | 13.2227\% | 403.4 | 354.1 | 91\% | 104\% |
| 92 | 364 | 2,275 | 0.160000 | 16.7630\% | 14.5027\% | 381.4 | 329.9 | 95\% | 110\% |
| 93 | 320 | 1,837 | 0.174197 | 18.4289\% | 15.8557\% | 338.5 | 291.3 | 95\% | 110\% |
| 94 | 285 | 1,551 | 0.183752 | 19.9426\% | 17.3419\% | 309.3 | 269.0 | 92\% | 106\% |
| 95 | 265 | 1,245 | 0.212851 | 21.6053\% | 19.0736\% | 269.0 | 237.5 | 99\% | 112\% |
| 96 | 200 | 926 | 0.215983 | 22.8186\% | 20.7927\% | 211.3 | 192.5 | 95\% | 104\% |
| 97 | 192 | 708 | 0.271186 | 24.0936\% | 22.7737\% | 170.6 | 161.2 | 113\% | 119\% |
| 98 | 101 | 459 | 0.220044 | 25.0745\% | 24.9475\% | 115.1 | 114.5 | 88\% | 88\% |
| 99 | 99 | 321 | 0.308411 | 25.6050\% | 27.2450\% | 82.2 | 87.5 | 120\% | 113\% |
| Subtotal | 10,071 | 257,680 |  |  |  | 10,834.2 | 10,133.2 | 93\% | 99\% |
| 100 or more | 158 | 517 | 0.305609 | 28.2831\% | 36.2744\% | 146.2 | 187.5 | 108\% | 84\% |
| Total | 10,229 | 258,197 |  |  |  | 10,980.4 | 10,320.8 | 93\% | 99\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

|  | TABLE 1A GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected $(7) /(\mathbf{3})$ | Proposed <br> (8) / (3) | Expected | Proposed | Expected $(2) /(7)$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 3 | 0.000000 | 0.2825\% | 0.2329\% | 0.0 | 0.0 | 0\% | 0\% |
| 45-49 | 0 | 88 | 0.000000 | 0.3885\% | 0.3166\% | 0.3 | 0.3 | 0\% | 0\% |
| 50-54 | 4 | 1,186 | 0.003373 | 0.5875\% | 0.4552\% | 7.0 | 5.4 | 57\% | 74\% |
| 55-59 | 57 | 5,729 | 0.009949 | 0.9022\% | 0.6920\% | 51.7 | 39.6 | 110\% | 144\% |
| 60-64 | 231 | 16,531 | 0.013974 | 1.3016\% | 1.0876\% | 215.2 | 179.8 | 107\% | 128\% |
| 65-69 | 383 | 24,237 | 0.015802 | 1.8434\% | 1.6913\% | 446.8 | 409.9 | 86\% | 93\% |
| 70-74 | 579 | 22,874 | 0.025313 | 2.5884\% | 2.6779\% | 592.1 | 612.5 | 98\% | 95\% |
| 75-79 | 714 | 18,658 | 0.038268 | 4.2719\% | 4.2905\% | 797.0 | 800.5 | 90\% | 89\% |
| 80-84 | 1,016 | 14,916 | 0.068115 | 7.2768\% | 6.8687\% | 1,085.4 | 1,024.5 | 94\% | 99\% |
| 85-89 | 956 | 9,256 | 0.103284 | 11.4842\% | 10.8395\% | 1,063.0 | 1,003.3 | 90\% | 95\% |
| 90-94 | 694 | 3,793 | 0.182969 | 18.8657\% | 17.1206\% | 715.6 | 649.4 | 97\% | 107\% |
| 95-99 | 267 | 1,001 | 0.266733 | 27.6656\% | 26.6852\% | 276.9 | 267.1 | 96\% | 100\% |
| 100+ | 45 | 125 | 0.360000 | 37.1685\% | 45.5092\% | 46.5 | 56.9 | 97\% | 79\% |
| Total | 4,946 | 118,397 |  |  |  | 5,297.4 | 5,049.4 | 93\% | 98\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL MORTALITY EXPERIENCE OF SERVICE RETIREES WOMEN

|  | TABLE 1B GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 45-49 | 0 | 17 | 0.000000 | 0.1911\% | 0.2264\% | 0.0 | 0.0 | 0\% | 0\% |
| 50-54 | 0 | 175 | 0.000000 | 0.3160\% | 0.3013\% | 0.6 | 0.5 | 0\% | 0\% |
| 55-59 | 22 | 4,437 | 0.004958 | 0.6488\% | 0.5135\% | 28.8 | 22.8 | 76\% | 97\% |
| 60-64 | 167 | 18,389 | 0.009082 | 1.0267\% | 0.8022\% | 188.8 | 147.5 | 88\% | 113\% |
| 65-69 | 337 | 29,237 | 0.011526 | 1.4260\% | 1.2349\% | 416.9 | 361.0 | 81\% | 93\% |
| 70-74 | 482 | 26,231 | 0.018375 | 1.9964\% | 1.9550\% | 523.7 | 512.8 | 92\% | 94\% |
| 75-79 | 534 | 19,723 | 0.027075 | 3.1339\% | 3.1450\% | 618.1 | 620.3 | 86\% | 86\% |
| 80-84 | 779 | 16,984 | 0.045867 | 5.1616\% | 5.0506\% | 876.6 | 857.8 | 89\% | 91\% |
| 85-89 | 1,171 | 13,850 | 0.084549 | 8.7887\% | 8.0440\% | 1,217.2 | 1,114.1 | 96\% | 105\% |
| 90-94 | 1,088 | 7,707 | 0.141170 | 14.8084\% | 12.6870\% | 1,141.3 | 977.8 | 95\% | 111\% |
| 95-99 | 590 | 2,658 | 0.221971 | 21.4906\% | 19.7928\% | 571.2 | 526.1 | 103\% | 112\% |
| 100+ | 113 | 392 | 0.288265 | 25.4498\% | 33.3297\% | 99.8 | 130.7 | 113\% | 86\% |
| Total | 5,283 | 139,800 |  |  |  | 5,683.0 | 5,271.4 | 93\% | 100\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL MORTALITY EXPERIENCE OF SERVICE RETIREES MEN AND WOMEN

|  | TABLE 1C GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 3 | 0.000000 | 0.2825\% | 0.2329\% | 0.0 | 0.0 | 0\% | 0\% |
| 45-49 | 0 | 105 | 0.000000 | 0.3565\% | 0.3020\% | 0.4 | 0.3 | 0\% | 0\% |
| 50-54 | 4 | 1,361 | 0.002939 | 0.5526\% | 0.4354\% | 7.5 | 5.9 | 53\% | 67\% |
| 55-59 | 79 | 10,166 | 0.007771 | 0.7916\% | 0.6141\% | 80.5 | 62.4 | 98\% | 127\% |
| 60-64 | 398 | 34,920 | 0.011397 | 1.1568\% | 0.9373\% | 404.0 | 327.3 | 99\% | 122\% |
| 65-69 | 720 | 53,474 | 0.013464 | 1.6152\% | 1.4418\% | 863.7 | 771.0 | 83\% | 93\% |
| 70-74 | 1,061 | 49,105 | 0.021607 | 2.2722\% | 2.2917\% | 1,115.7 | 1,125.4 | 95\% | 94\% |
| 75-79 | 1,248 | 38,381 | 0.032516 | 3.6871\% | 3.7019\% | 1,415.1 | 1,420.8 | 88\% | 88\% |
| 80-84 | 1,795 | 31,900 | 0.056270 | 6.1506\% | 5.9007\% | 1,962.1 | 1,882.3 | 91\% | 95\% |
| 85-89 | 2,127 | 23,106 | 0.092054 | 9.8685\% | 9.1638\% | 2,280.2 | 2,117.4 | 93\% | 100\% |
| 90-94 | 1,782 | 11,500 | 0.154957 | 16.1466\% | 14.1493\% | 1,856.9 | 1,627.2 | 96\% | 110\% |
| 95-99 | 857 | 3,659 | 0.234217 | 23.1799\% | 21.6783\% | 848.2 | 793.2 | 101\% | 108\% |
| 100+ | 158 | 517 | 0.305609 | 28.2831\% | 36.2744\% | 146.2 | 187.5 | 108\% | 84\% |
| Total | 10,229 | 258,197 |  |  |  | 10,980.4 | 10,320.8 | 93\% | 99\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

|  | TABLE 1A |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 1 | 0.000000 | 0.1641\% | 0.1954\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 1 | 0.000000 | 0.2095\% | 0.2139\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 2 | 0.000000 | 0.2524\% | 0.2335\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 7 | 0.000000 | 0.2930\% | 0.2539\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 11 | 0.000000 | 0.3309\% | 0.2753\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 17 | 0.000000 | 0.3623\% | 0.2973\% | 0.1 | 0.1 | 0\% | 0\% |
| 47 | 0 | 31 | 0.000000 | 0.3902\% | 0.3200\% | 0.1 | 0.1 | 0\% | 0\% |
| 48 | 0 | 47 | 0.000000 | 0.4150\% | 0.3435\% | 0.2 | 0.2 | 0\% | 0\% |
| 49 | 0 | 74 | 0.000000 | 0.4365\% | 0.3677\% | 0.3 | 0.3 | 0\% | 0\% |
| 50 | 2 | 195 | 0.010256 | 0.4548\% | 0.3928\% | 0.9 | 0.8 | 226\% | 261\% |
| 51 | 1 | 485 | 0.002062 | 0.5164\% | 0.4194\% | 2.5 | 2.0 | 40\% | 49\% |
| 52 | 0 | 661 | 0.000000 | 0.5801\% | 0.4482\% | 3.8 | 3.0 | 0\% | 0\% |
| 53 | 3 | 853 | 0.003517 | 0.6492\% | 0.4800\% | 5.5 | 4.1 | 54\% | 73\% |
| 54 | 7 | 1,095 | 0.006393 | 0.7209\% | 0.5159\% | 7.9 | 5.6 | 89\% | 124\% |
| 55 | 12 | 1,730 | 0.006936 | 0.7992\% | 0.5571\% | 13.8 | 9.6 | 87\% | 125\% |
| 56 | 23 | 2,882 | 0.007981 | 0.8580\% | 0.6045\% | 24.7 | 17.4 | 93\% | 132\% |
| 57 | 44 | 3,765 | 0.011687 | 0.9171\% | 0.6597\% | 34.5 | 24.8 | 127\% | 177\% |
| 58 | 46 | 4,520 | 0.010177 | 0.9770\% | 0.7235\% | 44.2 | 32.7 | 104\% | 141\% |
| 59 | 68 | 5,144 | 0.013219 | 1.0322\% | 0.7969\% | 53.1 | 41.0 | 128\% | 166\% |
| 60 | 66 | 5,822 | 0.011336 | 1.0873\% | 0.8809\% | 63.3 | 51.3 | 104\% | 129\% |
| 61 | 103 | 6,491 | 0.015868 | 1.2062\% | 0.9757\% | 78.3 | 63.3 | 132\% | 163\% |
| 62 | 85 | 7,942 | 0.010703 | 1.3166\% | 1.0811\% | 104.6 | 85.9 | 81\% | 99\% |
| 63 | 131 | 9,927 | 0.013196 | 1.4312\% | 1.1973\% | 142.1 | 118.9 | 92\% | 110\% |
| 64 | 157 | 10,522 | 0.014921 | 1.5362\% | 1.3248\% | 161.6 | 139.4 | 97\% | 113\% |
| 65 | 176 | 10,904 | 0.016141 | 1.6380\% | 1.4644\% | 178.6 | 159.7 | 99\% | 110\% |
| 66 | 184 | 11,250 | 0.016356 | 1.7825\% | 1.6171\% | 200.5 | 181.9 | 92\% | 101\% |
| 67 | 190 | 11,585 | 0.016401 | 1.9185\% | 1.7845\% | 222.3 | 206.7 | 85\% | 92\% |
| 68 | 193 | 11,679 | 0.016525 | 2.0444\% | 1.9673\% | 238.8 | 229.8 | 81\% | 84\% |
| 69 | 260 | 11,656 | 0.022306 | 2.1797\% | 2.1683\% | 254.1 | 252.7 | 102\% | 103\% |
| 70 | 267 | 11,423 | 0.023374 | 2.3034\% | 2.3885\% | 263.1 | 272.8 | 101\% | 98\% |
| 71 | 273 | 11,143 | 0.024500 | 2.5097\% | 2.6303\% | 279.7 | 293.1 | 98\% | 93\% |
| 72 | 325 | 10,867 | 0.029907 | 2.7205\% | 2.8957\% | 295.6 | 314.7 | 110\% | 103\% |
| 73 | 277 | 10,652 | 0.026005 | 2.9354\% | 3.1869\% | 312.7 | 339.5 | 89\% | 82\% |
| 74 | 300 | 10,323 | 0.029061 | 3.1547\% | 3.5059\% | 325.7 | 361.9 | 92\% | 83\% |
| 75 | 368 | 10,128 | 0.036335 | 3.3958\% | 3.8549\% | 343.9 | 390.4 | 107\% | 94\% |
| 76 | 379 | 9,893 | 0.038310 | 3.9148\% | 4.2378\% | 387.3 | 419.2 | 98\% | 90\% |
| 77 | 428 | 9,570 | 0.044723 | 4.4674\% | 4.6563\% | 427.5 | 445.6 | 100\% | 96\% |
| 78 | 464 | 9,275 | 0.050027 | 5.0367\% | 5.1135\% | 467.2 | 474.3 | 99\% | 98\% |
| 79 | 438 | 8,849 | 0.049497 | 5.6231\% | 5.6144\% | 497.6 | 496.8 | 88\% | 88\% |
| 80 | 496 | 8,428 | 0.058851 | 6.2265\% | 6.1638\% | 524.8 | 519.5 | 95\% | 95\% |
| 81 | 517 | 7,932 | 0.065179 | 6.8815\% | 6.7655\% | 545.8 | 536.6 | 95\% | 96\% |
| 82 | 516 | 7,436 | 0.069392 | 7.5426\% | 7.4253\% | 560.9 | 552.1 | 92\% | 93\% |
| 83 | 546 | 6,842 | 0.079801 | 8.1690\% | 8.1494\% | 558.9 | 557.6 | 98\% | 98\% |
| 84 | 528 | 6,234 | 0.084697 | 8.8398\% | 8.9441\% | 551.1 | 557.6 | 96\% | 95\% |
| 85 | 524 | 5,595 | 0.093655 | 9.4694\% | 9.8162\% | 529.8 | 549.2 | 99\% | 95\% |
| 86 | 557 | 4,968 | 0.112118 | 10.6877\% | 10.7724\% | 531.0 | 535.2 | 105\% | 104\% |
| 87 | 473 | 4,244 | 0.111451 | 12.0102\% | 11.8205\% | 509.7 | 501.7 | 93\% | 94\% |
| 88 | 465 | 3,682 | 0.126290 | 13.3898\% | 12.9666\% | 493.0 | 477.4 | 94\% | 97\% |
| 89 | 445 | 3,161 | 0.140778 | 14.7533\% | 14.2195\% | 466.4 | 449.5 | 95\% | 99\% |
| 90 | 437 | 2,649 | 0.164968 | 16.2424\% | 15.5886\% | 430.3 | 412.9 | 102\% | 106\% |
| 91 | 345 | 2,140 | 0.161215 | 18.0401\% | 17.0845\% | 386.1 | 365.6 | 89\% | 94\% |
| 92 | 342 | 1,746 | 0.195876 | 19.9041\% | 18.7143\% | 347.5 | 326.8 | 98\% | 105\% |
| 93 | 278 | 1,339 | 0.207618 | 21.6460\% | 20.4852\% | 289.8 | 274.3 | 96\% | 101\% |
| 94 | 227 | 1,027 | 0.221032 | 23.4023\% | 22.4306\% | 240.3 | 230.4 | 94\% | 99\% |
| 95 | 189 | 793 | 0.238335 | 25.4693\% | 24.5733\% | 202.0 | 194.9 | 94\% | 97\% |
| 96 | 161 | 577 | 0.279029 | 27.3348\% | 26.9426\% | 157.7 | 155.5 | 102\% | 104\% |
| 97 | 116 | 402 | 0.288557 | 29.1300\% | 29.5404\% | 117.1 | 118.8 | 99\% | 98\% |
| 98 | 72 | 259 | 0.277992 | 31.0896\% | 32.3888\% | 80.5 | 83.9 | 89\% | 86\% |
| 99 | 47 | 163 | 0.288344 | 32.6998\% | 35.5155\% | 53.3 | 57.9 | 88\% | 81\% |
| Subtotal | 12,551 | 291,039 |  |  |  | 13,012.1 | 12,896.9 | 96\% | 97\% |
| 100 or more | 95 | 235 | 0.404255 | 37.1685\% | 47.0399\% | 87.3 | 110.5 | 109\% | 86\% |
| Total | 12,646 | 291,274 |  |  |  | 13,099.4 | 13,007.4 | 97\% | 97\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL MORTALITY EXPERIENCE OF SERVICE RETIREES WOMEN

|  | TABLE 1B |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 0 | N/A | 0.0819\% | 0.1596\% | 0 | 0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.0908\% | 0.1706\% | 0 | 0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.1020\% | 0.1812\% | 0 | 0 | 0\% | 0\% |
| 44 | 0 | 1 | 0.000000 | 0.1156\% | 0.1914\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 3 | 0.000000 | 0.1313\% | 0.2012\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 4 | 0.000000 | 0.1492\% | 0.2105\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 6 | 0.000000 | 0.1693\% | 0.2194\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 9 | 0.000000 | 0.1919\% | 0.2277\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 22 | 0.000000 | 0.2162\% | 0.2358\% | 0.0 | 0.1 | 0\% | 0\% |
| 50 | 0 | 39 | 0.000000 | 0.2429\% | 0.2488\% | 0.1 | 0.1 | 0\% | 0\% |
| 51 | 1 | 70 | 0.014286 | 0.2752\% | 0.2666\% | 0.2 | 0.2 | 519\% | 536\% |
| 52 | 0 | 136 | 0.000000 | 0.3119\% | 0.2895\% | 0.4 | 0.4 | 0\% | 0\% |
| 53 | 0 | 226 | 0.000000 | 0.3517\% | 0.3177\% | 0.8 | 0.7 | 0\% | 0\% |
| 54 | 0 | 375 | 0.000000 | 0.3952\% | 0.3513\% | 1.5 | 1.3 | 0\% | 0\% |
| 55 | 2 | 1,004 | 0.001992 | 0.4427\% | 0.3906\% | 4.4 | 3.9 | 45\% | 51\% |
| 56 | 13 | 2,428 | 0.005354 | 0.5143\% | 0.4353\% | 12.5 | 10.6 | 104\% | 123\% |
| 57 | 24 | 3,446 | 0.006965 | 0.5899\% | 0.4857\% | 20.3 | 16.7 | 118\% | 143\% |
| 58 | 27 | 4,478 | 0.006029 | 0.6677\% | 0.5414\% | 29.9 | 24.2 | 90\% | 111\% |
| 59 | 40 | 5,307 | 0.007537 | 0.7498\% | 0.6025\% | 39.8 | 32.0 | 101\% | 125\% |
| 60 | 45 | 6,245 | 0.007206 | 0.8360\% | 0.6685\% | 52.2 | 41.7 | 86\% | 108\% |
| 61 | 71 | 7,101 | 0.009999 | 0.9283\% | 0.7392\% | 65.9 | 52.5 | 108\% | 135\% |
| 62 | 83 | 8,699 | 0.009541 | 1.0063\% | 0.8160\% | 87.5 | 71.0 | 95\% | 117\% |
| 63 | 120 | 11,418 | 0.010510 | 1.0825\% | 0.8998\% | 123.6 | 102.7 | 97\% | 117\% |
| 64 | 135 | 12,318 | 0.010960 | 1.1636\% | 0.9910\% | 143.3 | 122.1 | 94\% | 111\% |
| 65 | 145 | 12,726 | 0.011394 | 1.2496\% | 1.0901\% | 159.0 | 138.7 | 91\% | 105\% |
| 66 | 161 | 13,205 | 0.012192 | 1.3417\% | 1.1984\% | 177.2 | 158.2 | 91\% | 102\% |
| 67 | 151 | 13,310 | 0.011345 | 1.4451\% | 1.3166\% | 192.3 | 175.2 | 79\% | 86\% |
| 68 | 180 | 13,219 | 0.013617 | 1.5535\% | 1.4461\% | 205.4 | 191.2 | 88\% | 94\% |
| 69 | 183 | 12,965 | 0.014115 | 1.6294\% | 1.5881\% | 211.3 | 205.9 | 87\% | 89\% |
| 70 | 229 | 12,520 | 0.018291 | 1.6985\% | 1.7437\% | 212.7 | 218.3 | 108\% | 105\% |
| 71 | 238 | 12,108 | 0.019656 | 1.8767\% | 1.9146\% | 227.2 | 231.8 | 105\% | 103\% |
| 72 | 206 | 11,668 | 0.017655 | 2.0590\% | 2.1020\% | 240.2 | 245.3 | 86\% | 84\% |
| 73 | 236 | 11,290 | 0.020903 | 2.2263\% | 2.3080\% | 251.3 | 260.6 | 94\% | 91\% |
| 74 | 278 | 10,825 | 0.025681 | 2.3996\% | 2.5337\% | 259.8 | 274.3 | 107\% | 101\% |
| 75 | 230 | 10,461 | 0.021986 | 2.5562\% | 2.7819\% | 267.4 | 291.0 | 86\% | 79\% |
| 76 | 274 | 10,212 | 0.026831 | 2.8870\% | 3.0552\% | 294.8 | 312.0 | 93\% | 88\% |
| 77 | 312 | 10,007 | 0.031178 | 3.2341\% | 3.3563\% | 323.6 | 335.9 | 96\% | 93\% |
| 78 | 340 | 9,806 | 0.034673 | 3.5667\% | 3.6878\% | 349.8 | 361.6 | 97\% | 94\% |
| 79 | 346 | 9,715 | 0.035615 | 3.8992\% | 4.0546\% | 378.8 | 393.9 | 91\% | 88\% |
| 80 | 385 | 9,639 | 0.039942 | 4.2318\% | 4.4584\% | 407.9 | 429.7 | 94\% | 90\% |
| 81 | 409 | 9,384 | 0.043585 | 4.7578\% | 4.9043\% | 446.5 | 460.2 | 92\% | 89\% |
| 82 | 475 | 9,142 | 0.051958 | 5.2939\% | 5.3948\% | 484.0 | 493.2 | 98\% | 96\% |
| 83 | 483 | 8,829 | 0.054706 | 5.8399\% | 5.9362\% | 515.6 | 524.1 | 94\% | 92\% |
| 84 | 502 | 8,459 | 0.059345 | 6.3959\% | 6.5306\% | 541.0 | 552.4 | 93\% | 91\% |
| 85 | 572 | 8,063 | 0.070941 | 6.9972\% | 7.1838\% | 564.2 | 579.2 | 101\% | 99\% |
| 86 | 631 | 7,473 | 0.084437 | 8.0199\% | 7.8991\% | 599.3 | 590.3 | 105\% | 107\% |
| 87 | 583 | 6,875 | 0.084800 | 9.0525\% | 8.6794\% | 622.4 | 596.7 | 94\% | 98\% |
| 88 | 585 | 6,345 | 0.092199 | 10.0447\% | 9.5319\% | 637.3 | 604.8 | 92\% | 97\% |
| 89 | 630 | 5,682 | 0.110876 | 11.0925\% | 10.4649\% | 630.3 | 594.6 | 100\% | 106\% |
| 90 | 602 | 4,922 | 0.122308 | 12.0898\% | 11.4834\% | 595.1 | 565.2 | 101\% | 107\% |
| 91 | 552 | 4,282 | 0.128912 | 13.8041\% | 12.5946\% | 591.1 | 539.3 | 93\% | 102\% |
| 92 | 529 | 3,601 | 0.146904 | 15.4621\% | 13.8048\% | 556.8 | 497.1 | 95\% | 106\% |
| 93 | 488 | 2,944 | 0.165761 | 17.1684\% | 15.1237\% | 505.4 | 445.2 | 97\% | 110\% |
| 94 | 432 | 2,381 | 0.181436 | 18.6886\% | 16.5652\% | 445.0 | 394.4 | 97\% | 110\% |
| 95 | 392 | 1,840 | 0.213043 | 20.1504\% | 18.1442\% | 370.8 | 333.9 | 106\% | 117\% |
| 96 | 307 | 1,353 | 0.226903 | 21.3100\% | 19.8879\% | 288.3 | 269.1 | 106\% | 114\% |
| 97 | 236 | 967 | 0.244054 | 22.4283\% | 21.7949\% | 216.9 | 210.8 | 109\% | 112\% |
| 98 | 147 | 649 | 0.226502 | 23.1412\% | 23.8896\% | 150.2 | 155.0 | 98\% | 95\% |
| 99 | 135 | 455 | 0.296703 | 23.5424\% | 26.1831\% | 107.1 | 119.1 | 126\% | 113\% |
| Subtotal | 13,145 | 340,657 |  |  |  | 13,608.5 | 13,228.7 | 97\% | 99\% |
| 100 or more | 216 | 709 | 0.304654 | 25.4498\% | 34.6676\% | 180.4 | 245.8 | 120\% | 88\% |
| Total | 13,361 | 341,366 |  |  |  | 13,789.0 | 13,474.5 | 97\% | 99\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL MORTALITY EXPERIENCE OF SERVICE RETIREES MEN AND WOMEN

|  | TABLE 1C |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 1 | 0.000000 | 0.1641\% | 0.1954\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 1 | 0.000000 | 0.2095\% | 0.2139\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 2 | 0.000000 | 0.2524\% | 0.2335\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 8 | 0.000000 | 0.2708\% | 0.2461\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 14 | 0.000000 | 0.2881\% | 0.2594\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 21 | 0.000000 | 0.3217\% | 0.2807\% | 0.1 | 0.1 | 0\% | 0\% |
| 47 | 0 | 37 | 0.000000 | 0.3544\% | 0.3037\% | 0.1 | 0.1 | 0\% | 0\% |
| 48 | 0 | 56 | 0.000000 | 0.3791\% | 0.3249\% | 0.2 | 0.2 | 0\% | 0\% |
| 49 | 0 | 96 | 0.000000 | 0.3860\% | 0.3375\% | 0.4 | 0.3 | 0\% | 0\% |
| 50 | 2 | 234 | 0.008547 | 0.4195\% | 0.3688\% | 1.0 | 0.9 | 204\% | 232\% |
| 51 | 2 | 555 | 0.003604 | 0.4860\% | 0.4002\% | 2.7 | 2.2 | 74\% | 90\% |
| 52 | 0 | 797 | 0.000000 | 0.5343\% | 0.4211\% | 4.3 | 3.4 | 0\% | 0\% |
| 53 | 3 | 1,079 | 0.002780 | 0.5869\% | 0.4460\% | 6.3 | 4.8 | 47\% | 62\% |
| 54 | 7 | 1,470 | 0.004762 | 0.6378\% | 0.4739\% | 9.4 | 7.0 | 75\% | 100\% |
| 55 | 14 | 2,734 | 0.005121 | 0.6683\% | 0.4959\% | 18.3 | 13.6 | 77\% | 103\% |
| 56 | 36 | 5,310 | 0.006780 | 0.7008\% | 0.5272\% | 37.2 | 28.0 | 97\% | 129\% |
| 57 | 68 | 7,211 | 0.009430 | 0.7607\% | 0.5766\% | 54.9 | 41.6 | 124\% | 164\% |
| 58 | 73 | 8,998 | 0.008113 | 0.8231\% | 0.6329\% | 74.1 | 56.9 | 99\% | 128\% |
| 59 | 108 | 10,451 | 0.010334 | 0.8888\% | 0.6982\% | 92.9 | 73.0 | 116\% | 148\% |
| 60 | 111 | 12,067 | 0.009199 | 0.9572\% | 0.7709\% | 115.5 | 93.0 | 96\% | 119\% |
| 61 | 174 | 13,592 | 0.012802 | 1.0610\% | 0.8521\% | 144.2 | 115.8 | 121\% | 150\% |
| 62 | 168 | 16,641 | 0.010096 | 1.1544\% | 0.9425\% | 192.1 | 156.8 | 87\% | 107\% |
| 63 | 251 | 21,345 | 0.011759 | 1.2447\% | 1.0382\% | 265.7 | 221.6 | 94\% | 113\% |
| 64 | 292 | 22,840 | 0.012785 | 1.3353\% | 1.1448\% | 305.0 | 261.5 | 96\% | 112\% |
| 65 | 321 | 23,630 | 0.013584 | 1.4288\% | 1.2628\% | 337.6 | 298.4 | 95\% | 108\% |
| 66 | 345 | 24,455 | 0.014108 | 1.5445\% | 1.3910\% | 377.7 | 340.2 | 91\% | 101\% |
| 67 | 341 | 24,895 | 0.013698 | 1.6654\% | 1.5343\% | 414.6 | 382.0 | 82\% | 89\% |
| 68 | 373 | 24,898 | 0.014981 | 1.7838\% | 1.6906\% | 444.1 | 420.9 | 84\% | 89\% |
| 69 | 443 | 24,621 | 0.017993 | 1.8899\% | 1.8628\% | 465.3 | 458.6 | 95\% | 97\% |
| 70 | 496 | 23,943 | 0.020716 | 1.9871\% | 2.0513\% | 475.8 | 491.2 | 104\% | 101\% |
| 71 | 511 | 23,251 | 0.021978 | 2.1801\% | 2.2576\% | 506.9 | 524.9 | 101\% | 97\% |
| 72 | 531 | 22,535 | 0.023563 | 2.3780\% | 2.4847\% | 535.9 | 559.9 | 99\% | 95\% |
| 73 | 513 | 21,942 | 0.023380 | 2.5705\% | 2.7347\% | 564.0 | 600.0 | 91\% | 85\% |
| 74 | 578 | 21,148 | 0.027331 | 2.7682\% | 3.0082\% | 585.4 | 636.2 | 99\% | 91\% |
| 75 | 598 | 20,589 | 0.029045 | 2.9692\% | 3.3098\% | 611.3 | 681.4 | 98\% | 88\% |
| 76 | 653 | 20,105 | 0.032479 | 3.3927\% | 3.6371\% | 682.1 | 731.2 | 96\% | 89\% |
| 77 | 740 | 19,577 | 0.037799 | 3.8370\% | 3.9918\% | 751.2 | 781.5 | 99\% | 95\% |
| 78 | 804 | 19,081 | 0.042136 | 4.2812\% | 4.3808\% | 816.9 | 835.9 | 98\% | 96\% |
| 79 | 784 | 18,564 | 0.042232 | 4.7209\% | 4.7981\% | 876.4 | 890.7 | 89\% | 88\% |
| 80 | 881 | 18,067 | 0.048763 | 5.1623\% | 5.2539\% | 932.7 | 949.2 | 94\% | 93\% |
| 81 | 926 | 17,316 | 0.053477 | 5.7306\% | 5.7569\% | 992.3 | 996.9 | 93\% | 93\% |
| 82 | 991 | 16,578 | 0.059778 | 6.3025\% | 6.3056\% | 1,044.8 | 1,045.3 | 95\% | 95\% |
| 83 | 1,029 | 15,671 | 0.065663 | 6.8568\% | 6.9025\% | 1,074.5 | 1,081.7 | 96\% | 95\% |
| 84 | 1,030 | 14,693 | 0.070101 | 7.4328\% | 7.5546\% | 1,092.1 | 1,110.0 | 94\% | 93\% |
| 85 | 1,096 | 13,658 | 0.080246 | 8.0099\% | 8.2622\% | 1,094.0 | 1,128.5 | 100\% | 97\% |
| 86 | 1,188 | 12,441 | 0.095491 | 9.0852\% | 9.0465\% | 1,130.3 | 1,125.5 | 105\% | 106\% |
| 87 | 1,056 | 11,119 | 0.094973 | 10.1814\% | 9.8783\% | 1,132.1 | 1,098.4 | 93\% | 96\% |
| 88 | 1,050 | 10,027 | 0.104717 | 11.2730\% | 10.7932\% | 1,130.3 | 1,082.2 | 93\% | 97\% |
| 89 | 1,075 | 8,843 | 0.121565 | 12.4011\% | 11.8070\% | 1,096.6 | 1,044.1 | 98\% | 103\% |
| 90 | 1,039 | 7,571 | 0.137234 | 13.5427\% | 12.9198\% | 1,025.3 | 978.2 | 101\% | 106\% |
| 91 | 897 | 6,422 | 0.139676 | 15.2157\% | 14.0907\% | 977.1 | 904.9 | 92\% | 99\% |
| 92 | 871 | 5,347 | 0.162895 | 16.9126\% | 15.4080\% | 904.3 | 823.9 | 96\% | 106\% |
| 93 | 766 | 4,283 | 0.178847 | 18.5682\% | 16.7998\% | 795.3 | 719.5 | 96\% | 106\% |
| 94 | 659 | 3,408 | 0.193369 | 20.1091\% | 18.3327\% | 685.3 | 624.8 | 96\% | 105\% |
| 95 | 581 | 2,633 | 0.220661 | 21.7523\% | 20.0805\% | 572.7 | 528.7 | 101\% | 110\% |
| 96 | 468 | 1,930 | 0.242487 | 23.1112\% | 21.9970\% | 446.0 | 424.5 | 105\% | 110\% |
| 97 | 352 | 1,369 | 0.257122 | 24.3962\% | 24.0693\% | 334.0 | 329.5 | 105\% | 107\% |
| 98 | 219 | 908 | 0.241189 | 25.4084\% | 26.3139\% | 230.7 | 238.9 | 95\% | 92\% |
| 99 | 182 | 618 | 0.294498 | 25.9577\% | 28.6445\% | 160.4 | 177.0 | 113\% | 103\% |
| Subtotal | 25,696 | 631,696 |  |  |  | 26,620.6 | 26,125.6 | 97\% | 98\% |
| 100 or more | 311 | 944 | 0.329449 | 28.3671\% | 37.7476\% | 267.8 | 356.3 | 116\% | 87\% |
| Total | 26,007 | 632,640 |  |  |  | 26,888.4 | 26,481.9 | 97\% | 98\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

| Age | TABLE 1A GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 11 | 0.000000 | 0.2663\% | 0.2412\% | 0.0 | 0.0 | 0\% | 0\% |
| 45-49 | 0 | 180 | 0.000000 | 0.4095\% | 0.3409\% | 0.7 | 0.6 | 0\% | 0\% |
| 50-54 | 13 | 3,289 | 0.003953 | 0.6281\% | 0.4715\% | 20.7 | 15.5 | 63\% | 84\% |
| 55-59 | 193 | 18,041 | 0.010698 | 0.9442\% | 0.6962\% | 170.3 | 125.6 | 113\% | 154\% |
| 60-64 | 542 | 40,704 | 0.013316 | 1.3509\% | 1.1270\% | 549.9 | 458.7 | 99\% | 118\% |
| 65-69 | 1,003 | 57,074 | 0.017574 | 1.9172\% | 1.8061\% | 1,094.2 | 1,030.8 | 92\% | 97\% |
| 70-74 | 1,442 | 54,408 | 0.026503 | 2.7142\% | 2.9076\% | 1,476.7 | 1,582.0 | 98\% | 91\% |
| 75-79 | 2,077 | 47,715 | 0.043529 | 4.4504\% | 4.6660\% | 2,123.5 | 2,226.4 | 98\% | 93\% |
| 80-84 | 2,603 | 36,872 | 0.070596 | 7.4351\% | 7.3861\% | 2,741.5 | 2,723.4 | 95\% | 96\% |
| 85-89 | 2,464 | 21,650 | 0.113811 | 11.6852\% | 11.6072\% | 2,529.9 | 2,513.0 | 97\% | 98\% |
| 90-94 | 1,629 | 8,901 | 0.183013 | 19.0319\% | 18.0874\% | 1,694.0 | 1,610.0 | 96\% | 101\% |
| 95-99 | 585 | 2,194 | 0.266636 | 27.8313\% | 27.8421\% | 610.6 | 610.9 | 96\% | 96\% |
| 100+ | 95 | 235 | 0.404255 | 37.1685\% | 47.0399\% | 87.3 | 110.5 | 109\% | 86\% |
| Total | 12,646 | 291,274 |  |  |  | 13,099.4 | 13,007.4 | 97\% | 97\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL MORTALITY EXPERIENCE OF SERVICE RETIREES WOMEN

|  | TABLE 1B GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 1 | 0.000000 | 0.1156\% | 0.1914\% | 0.0 | 0.0 | 0\% | 0\% |
| 45-49 | 0 | 44 | 0.000000 | 0.1930\% | 0.2273\% | 0.1 | 0.1 | 0\% | 0\% |
| 50-54 | 1 | 846 | 0.001182 | 0.3532\% | 0.3207\% | 3.0 | 2.7 | 33\% | 37\% |
| 55-59 | 106 | 16,663 | 0.006361 | 0.6418\% | 0.5248\% | 107.0 | 87.4 | 99\% | 121\% |
| 60-64 | 454 | 45,781 | 0.009917 | 1.0323\% | 0.8519\% | 472.6 | 390.0 | 96\% | 116\% |
| 65-69 | 820 | 65,425 | 0.012533 | 1.4446\% | 1.3286\% | 945.1 | 869.3 | 87\% | 94\% |
| 70-74 | 1,187 | 58,411 | 0.020322 | 2.0394\% | 2.1062\% | 1,191.2 | 1,230.2 | 100\% | 96\% |
| 75-79 | 1,502 | 50,201 | 0.029920 | 3.2159\% | 3.3753\% | 1,614.4 | 1,694.4 | 93\% | 89\% |
| 80-84 | 2,254 | 45,453 | 0.049590 | 5.2691\% | 5.4115\% | 2,395.0 | 2,459.7 | 94\% | 92\% |
| 85-89 | 3,001 | 34,438 | 0.087142 | 8.8666\% | 8.6116\% | 3,053.5 | 2,965.7 | 98\% | 101\% |
| 90-94 | 2,603 | 18,130 | 0.143574 | 14.8558\% | 13.4654\% | 2,693.4 | 2,441.3 | 97\% | 107\% |
| 95-99 | 1,217 | 5,264 | 0.231193 | 21.5288\% | 20.6662\% | 1,133.3 | 1,087.9 | 107\% | 112\% |
| 100+ | 216 | 709 | 0.304654 | 25.4498\% | 34.6676\% | 180.4 | 245.8 | 120\% | 88\% |
| Total | 13,361 | 341,366 |  |  |  | 13,789.0 | 13,474.5 | 97\% | 99\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL MORTALITY EXPERIENCE OF SERVICE RETIREES MEN AND WOMEN

| Age | TABLE 1C GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Rate |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 12 | 0.000000 | 0.2538\% | 0.2371\% | 0.0 | 0.0 | 0\% | 0\% |
| 45-49 | 0 | 224 | 0.000000 | 0.3669\% | 0.3186\% | 0.8 | 0.7 | 0\% | 0\% |
| 50-54 | 14 | 4,135 | 0.003386 | 0.5718\% | 0.4406\% | 23.6 | 18.2 | 59\% | 77\% |
| 55-59 | 299 | 34,704 | 0.008616 | 0.7990\% | 0.6139\% | 277.3 | 213.0 | 108\% | 140\% |
| 60-64 | 996 | 86,485 | 0.011516 | 1.1823\% | 0.9814\% | 1,022.5 | 848.8 | 97\% | 117\% |
| 65-69 | 1,823 | 122,499 | 0.014882 | 1.6648\% | 1.5511\% | 2,039.4 | 1,900.1 | 89\% | 96\% |
| 70-74 | 2,629 | 112,819 | 0.023303 | 2.3648\% | 2.4927\% | 2,668.0 | 2,812.2 | 99\% | 93\% |
| 75-79 | 3,579 | 97,916 | 0.036552 | 3.8175\% | 4.0042\% | 3,737.9 | 3,920.8 | 96\% | 91\% |
| 80-84 | 4,857 | 82,325 | 0.058998 | 6.2392\% | 6.2959\% | 5,136.5 | 5,183.1 | 95\% | 94\% |
| 85-89 | 5,465 | 56,088 | 0.097436 | 9.9546\% | 9.7679\% | 5,583.3 | 5,478.6 | 98\% | 100\% |
| 90-94 | 4,232 | 27,031 | 0.156561 | 16.2309\% | 14.9874\% | 4,387.4 | 4,051.2 | 96\% | 104\% |
| 95-99 | 1,802 | 7,458 | 0.241620 | 23.3829\% | 22.7772\% | 1,743.9 | 1,698.7 | 103\% | 106\% |
| 100+ | 311 | 944 | 0.329449 | 28.3671\% | 37.7476\% | 267.8 | 356.3 | 116\% | 87\% |
| Total | 26,007 | 632,640 |  |  |  | 26,888.4 | 26,481.9 | 97\% | 98\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL MORTALITY EXPERIENCE OF SERVICE RETIREES MEN AND WOMEN

| Plan <br> Year <br> Ending <br> June 30, | TABLE 1D <br> Life Years Exposed | Actual <br> Deaths | Expected Deaths | 10-YEAR PERIOD ENDING 6/30/2013 $\qquad$ <br> Mortality Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / <br> Expected | $\begin{aligned} & \hline \text { Actual } \\ & \text { (3) } /(2) \\ & \hline \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 63,360 | 2,845 | 2,278.0 | 125\% | 4.4902\% | 3.5954\% |
| 2005 | 63,112 | 2,729 | 2,302.4 | 119\% | 4.3241\% | 3.6480\% |
| 2006 | 61,877 | 2,510 | 2,323.1 | 108\% | 4.0564\% | 3.7544\% |
| 2007 | 61,920 | 2,716 | 2,357.2 | 115\% | 4.3863\% | 3.8068\% |
| 2008 | 61,924 | 2,467 | 2,362.5 | 104\% | 3.9839\% | 3.8151\% |
| 2009 | 62,256 | 2,511 | 2,404.5 | 104\% | 4.0333\% | 3.8623\% |
| 2010 | 62,126 | 2,575 | 2,434.7 | 106\% | 4.1448\% | 3.9189\% |
| 2011 | 63,389 | 2,529 | 2,481.4 | 102\% | 3.9897\% | 3.9145\% |
| 2012 | 65,497 | 2,210 | 2,537.3 | 87\% | 3.3742\% | 3.8740\% |
| 2013 | 67,185 | 2,915 | 2,607.7 | 112\% | 4.3388\% | 3.8814\% |
| Total | 632,646 | 26,007 | 24,088.8 | 108\% | 4.1108\% | 3.8076\% |

*The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 41.

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN

| Age | TABLE 2A |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | $\begin{aligned} & \text { Expected } \\ & \text { (3) x (5) } \end{aligned}$ | Proposed $\text { (3) } \times(6)$ | Expected $(2) /(7)$ | Proposed $(\mathbf{2}) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 1 | 66 | 0.015152 | 1.4444\% | 0.4277\% | 1.0 | 0.3 | 105\% | 354\% |
| 42 | 2 | 74 | 0.027027 | 1.4841\% | 0.5537\% | 1.1 | 0.4 | 182\% | 488\% |
| 43 | 2 | 85 | 0.023529 | 1.5246\% | 0.6796\% | 1.3 | 0.6 | 154\% | 346\% |
| 44 | 2 | 113 | 0.017699 | 1.5660\% | 0.8055\% | 1.8 | 0.9 | 113\% | 220\% |
| 45 | 4 | 133 | 0.030075 | 1.6079\% | 0.9315\% | 2.1 | 1.2 | 187\% | 323\% |
| 46 | 1 | 147 | 0.006803 | 1.6532\% | 1.0574\% | 2.4 | 1.6 | 41\% | 64\% |
| 47 | 4 | 162 | 0.024691 | 1.6979\% | 1.1833\% | 2.8 | 1.9 | 145\% | 209\% |
| 48 | 1 | 190 | 0.005263 | 1.7687\% | 1.2873\% | 3.4 | 2.4 | 30\% | 41\% |
| 49 | 1 | 223 | 0.004484 | 1.8401\% | 1.3912\% | 4.1 | 3.1 | 24\% | 32\% |
| 50 | 3 | 279 | 0.010753 | 1.9120\% | 1.4952\% | 5.3 | 4.2 | 56\% | 72\% |
| 51 | 3 | 324 | 0.009259 | 2.0266\% | 1.5992\% | 6.6 | 5.2 | 46\% | 58\% |
| 52 | 13 | 349 | 0.037249 | 2.1447\% | 1.7031\% | 7.5 | 5.9 | 174\% | 219\% |
| 53 | 8 | 382 | 0.020942 | 2.2867\% | 1.7916\% | 8.7 | 6.8 | 92\% | 117\% |
| 54 | 11 | 406 | 0.027094 | 2.4343\% | 1.8801\% | 9.9 | 7.6 | 111\% | 144\% |
| 55 | 9 | 434 | 0.020737 | 2.6085\% | 1.9686\% | 11.3 | 8.5 | 79\% | 105\% |
| 56 | 8 | 472 | 0.016949 | 2.6895\% | 2.0571\% | 12.7 | 9.7 | 63\% | 82\% |
| 57 | 10 | 473 | 0.021142 | 2.7715\% | 2.1456\% | 13.1 | 10.1 | 76\% | 99\% |
| 58 | 8 | 483 | 0.016563 | 2.8551\% | 2.2383\% | 13.8 | 10.8 | 58\% | 74\% |
| 59 | 13 | 516 | 0.025194 | 2.9164\% | 2.3309\% | 15.0 | 12.0 | 86\% | 108\% |
| 60 | 20 | 542 | 0.036900 | 2.9783\% | 2.4235\% | 16.1 | 13.1 | 124\% | 152\% |
| 61 | 18 | 555 | 0.032432 | 3.1350\% | 2.5162\% | 17.4 | 14.0 | 103\% | 129\% |
| 62 | 14 | 571 | 0.024518 | 3.2734\% | 2.6088\% | 18.7 | 14.9 | 75\% | 94\% |
| 63 | 12 | 557 | 0.021544 | 3.4465\% | 2.7383\% | 19.2 | 15.3 | 63\% | 79\% |
| 64 | 18 | 516 | 0.034884 | 3.6008\% | 2.8677\% | 18.6 | 14.8 | 97\% | 122\% |
| 65 | 19 | 464 | 0.040948 | 3.7650\% | 2.9972\% | 17.5 | 13.9 | 109\% | 137\% |
| 66 | 17 | 422 | 0.040284 | 3.8492\% | 3.1266\% | 16.2 | 13.2 | 105\% | 129\% |
| 67 | 18 | 385 | 0.046753 | 3.9079\% | 3.2560\% | 15.0 | 12.5 | 120\% | 144\% |
| 68 | 18 | 372 | 0.048387 | 3.9758\% | 3.4680\% | 14.8 | 12.9 | 122\% | 140\% |
| 69 | 20 | 375 | 0.053333 | 4.0089\% | 3.6800\% | 15.0 | 13.8 | 133\% | 145\% |
| 70 | 20 | 345 | 0.057971 | 4.0789\% | 3.8920\% | 14.1 | 13.4 | 142\% | 149\% |
| 71 | 15 | 324 | 0.046296 | 4.2824\% | 4.1040\% | 13.9 | 13.3 | 108\% | 113\% |
| 72 | 13 | 292 | 0.044521 | 4.5348\% | 4.3160\% | 13.2 | 12.6 | 98\% | 103\% |
| 73 | 12 | 284 | 0.042254 | 4.8103\% | 4.6694\% | 13.7 | 13.3 | 88\% | 90\% |
| 74 | 16 | 253 | 0.063241 | 5.1099\% | 5.0227\% | 12.9 | 12.7 | 124\% | 126\% |
| 75 | 11 | 223 | 0.049327 | 5.4793\% | 5.3761\% | 12.2 | 12.0 | 90\% | 92\% |
| 76 | 6 | 200 | 0.030000 | 5.9251\% | 5.7294\% | 11.9 | 11.5 | 51\% | 52\% |
| 77 | 9 | 170 | 0.052941 | 6.4623\% | 6.0828\% | 11.0 | 10.3 | 82\% | 87\% |
| 78 | 7 | 168 | 0.041667 | 7.0498\% | 6.6494\% | 11.8 | 11.2 | 59\% | 63\% |
| 79 | 10 | 152 | 0.065789 | 7.6912\% | 7.2161\% | 11.7 | 11.0 | 86\% | 91\% |
| 80 | 7 | 141 | 0.049645 | 8.3900\% | 7.7827\% | 11.8 | 11.0 | 59\% | 64\% |
| 81 | 5 | 148 | 0.033784 | 9.1500\% | 8.3493\% | 13.5 | 12.4 | 37\% | 40\% |
| 82 | 13 | 140 | 0.092857 | 9.9739\% | 8.9159\% | 14.0 | 12.5 | 93\% | 104\% |
| 83 | 11 | 119 | 0.092437 | 10.7832\% | 9.7808\% | 12.8 | 11.6 | 86\% | 95\% |
| 84 | 9 | 96 | 0.093750 | 11.7507\% | 10.6456\% | 11.3 | 10.2 | 80\% | 88\% |
| 85 | 8 | 80 | 0.100000 | 12.7010\% | 11.5105\% | 10.2 | 9.2 | 79\% | 87\% |
| 86 | 6 | 60 | 0.100000 | 13.4167\% | 12.3753\% | 8.1 | 7.4 | 75\% | 81\% |
| 87 | 6 | 55 | 0.109091 | 14.0240\% | 13.2402\% | 7.7 | 7.3 | 78\% | 82\% |
| 88 | 6 | 46 | 0.130435 | 14.7914\% | 14.5013\% | 6.8 | 6.7 | 88\% | 90\% |
| 89 | 11 | 41 | 0.268293 | 15.4730\% | 15.7625\% | 6.3 | 6.5 | 173\% | 170\% |
| 90 | 8 | 29 | 0.275862 | 16.3129\% | 17.0236\% | 4.7 | 4.9 | 169\% | 162\% |
| 91 | 6 | 18 | 0.333333 | 18.1428\% | 18.2847\% | 3.3 | 3.3 | 184\% | 182\% |
| 92 | 0 | 13 | 0.000000 | 20.3472\% | 19.5459\% | 2.6 | 2.5 | 0\% | 0\% |
| 93 | 3 | 12 | 0.250000 | 22.3332\% | 21.3144\% | 2.7 | 2.6 | 112\% | 117\% |
| 94 | 1 | 10 | 0.100000 | 24.2739\% | 23.0829\% | 2.4 | 2.3 | 41\% | 43\% |
| 95 | 3 | 8 | 0.375000 | 26.4093\% | 24.8515\% | 2.1 | 2.0 | 142\% | 151\% |
| 96 | 1 | 3 | 0.333333 | 28.2045\% | 26.6200\% | 0.8 | 0.8 | 118\% | 125\% |
| 97 | 1 | 2 | 0.500000 | 29.8596\% | 28.3885\% | 0.6 | 0.6 | 167\% | 176\% |
| 98 | 0 | 0 | N/A | 31.6972\% | 30.7886\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 33.0026\% | 33.1888\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 502 | 13,502 |  |  |  | 540.7 | 466.8 | 93\% | 108\% |
| 100 or more | 0 | 0 | N/A | 37.1685\% | 40.3891\% | 0 | 0 | 0\% | 0\% |
| Total | 502 | 13,502 |  |  |  | 540.7 | 466.8 | 93\% | 108\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL MORTALITY EXPERIENCE OF DISABILITY RETIREES WOMEN

| Age | TABLE 2B |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 29 | 0.000000 | 1.4837\% | 0.9226\% | 0.4 | 0.3 | 0\% | 0\% |
| 42 | 1 | 51 | 0.019608 | 1.5121\% | 1.0619\% | 0.8 | 0.5 | 130\% | 185\% |
| 43 | 3 | 60 | 0.050000 | 1.5409\% | 1.2013\% | 0.9 | 0.7 | 324\% | 416\% |
| 44 | 0 | 76 | 0.000000 | 1.5630\% | 1.3407\% | 1.2 | 1.0 | 0\% | 0\% |
| 45 | 0 | 82 | 0.000000 | 1.6061\% | 1.4800\% | 1.3 | 1.2 | 0\% | 0\% |
| 46 | 5 | 105 | 0.047619 | 1.6501\% | 1.6194\% | 1.7 | 1.7 | 289\% | 294\% |
| 47 | 3 | 119 | 0.025210 | 1.6950\% | 1.7588\% | 2.0 | 2.1 | 149\% | 143\% |
| 48 | 1 | 145 | 0.006897 | 1.7177\% | 1.8672\% | 2.5 | 2.7 | 40\% | 37\% |
| 49 | 5 | 187 | 0.026738 | 1.7429\% | 1.9756\% | 3.3 | 3.7 | 153\% | 135\% |
| 50 | 8 | 215 | 0.037209 | 1.7433\% | 2.0840\% | 3.7 | 4.5 | 213\% | 179\% |
| 51 | 3 | 219 | 0.013699 | 1.7687\% | 2.1925\% | 3.9 | 4.8 | 77\% | 62\% |
| 52 | 3 | 255 | 0.011765 | 1.7686\% | 2.3009\% | 4.5 | 5.9 | 67\% | 51\% |
| 53 | 9 | 253 | 0.035573 | 1.7665\% | 2.3794\% | 4.5 | 6.0 | 201\% | 150\% |
| 54 | 10 | 296 | 0.033784 | 1.7997\% | 2.4580\% | 5.3 | 7.3 | 188\% | 137\% |
| 55 | 10 | 354 | 0.028249 | 1.8308\% | 2.5365\% | 6.5 | 9.0 | 154\% | 111\% |
| 56 | 5 | 380 | 0.013158 | 1.9016\% | 2.6151\% | 7.2 | 9.9 | 69\% | 50\% |
| 57 | 7 | 416 | 0.016827 | 1.9980\% | 2.6936\% | 8.3 | 11.2 | 84\% | 62\% |
| 58 | 15 | 427 | 0.035129 | 2.1697\% | 2.7573\% | 9.3 | 11.8 | 162\% | 127\% |
| 59 | 15 | 421 | 0.035629 | 2.2668\% | 2.8209\% | 9.5 | 11.9 | 157\% | 126\% |
| 60 | 16 | 443 | 0.036117 | 2.3670\% | 2.8846\% | 10.5 | 12.8 | 153\% | 125\% |
| 61 | 15 | 462 | 0.032468 | 2.4709\% | 2.9483\% | 11.4 | 13.6 | 131\% | 110\% |
| 62 | 13 | 470 | 0.027660 | 2.5239\% | 3.0119\% | 11.9 | 14.2 | 110\% | 92\% |
| 63 | 15 | 426 | 0.035211 | 2.5775\% | 3.0896\% | 11.0 | 13.2 | 137\% | 114\% |
| 64 | 15 | 423 | 0.035461 | 2.7492\% | 3.1674\% | 11.6 | 13.4 | 129\% | 112\% |
| 65 | 14 | 396 | 0.035354 | 2.8706\% | 3.2451\% | 11.4 | 12.9 | 123\% | 109\% |
| 66 | 8 | 399 | 0.020050 | 3.0625\% | 3.3228\% | 12.2 | 13.3 | 65\% | 60\% |
| 67 | 13 | 387 | 0.033592 | 3.1997\% | 3.4005\% | 12.4 | 13.2 | 105\% | 99\% |
| 68 | 19 | 374 | 0.050802 | 3.3456\% | 3.5351\% | 12.5 | 13.2 | 152\% | 144\% |
| 69 | 12 | 335 | 0.035821 | 3.4266\% | 3.6698\% | 11.5 | 12.3 | 105\% | 98\% |
| 70 | 7 | 290 | 0.024138 | 3.5100\% | 3.8044\% | 10.2 | 11.0 | 69\% | 63\% |
| 71 | 11 | 277 | 0.039711 | 3.5716\% | 3.9390\% | 9.9 | 10.9 | 111\% | 101\% |
| 72 | 11 | 243 | 0.045267 | 3.6091\% | 4.0737\% | 8.8 | 9.9 | 125\% | 111\% |
| 73 | 6 | 208 | 0.028846 | 3.6726\% | 4.3220\% | 7.6 | 9.0 | 79\% | 67\% |
| 74 | 10 | 181 | 0.055249 | 3.8549\% | 4.5704\% | 7.0 | 8.3 | 143\% | 121\% |
| 75 | 5 | 153 | 0.032680 | 4.1360\% | 4.8187\% | 6.3 | 7.4 | 79\% | 68\% |
| 76 | 6 | 135 | 0.044444 | 4.3872\% | 5.0671\% | 5.9 | 6.8 | 101\% | 88\% |
| 77 | 8 | 125 | 0.064000 | 4.5998\% | 5.3154\% | 5.7 | 6.6 | 139\% | 120\% |
| 78 | 5 | 93 | 0.053763 | 4.9979\% | 5.7482\% | 4.6 | 5.3 | 108\% | 94\% |
| 79 | 7 | 91 | 0.076923 | 5.4045\% | 6.1810\% | 4.9 | 5.6 | 142\% | 124\% |
| 80 | 6 | 74 | 0.081081 | 5.9727\% | 6.6138\% | 4.4 | 4.9 | 136\% | 123\% |
| 81 | 3 | 58 | 0.051724 | 6.6020\% | 7.0467\% | 3.8 | 4.1 | 78\% | 73\% |
| 82 | 3 | 53 | 0.056604 | 7.2980\% | 7.4795\% | 3.9 | 4.0 | 78\% | 76\% |
| 83 | 4 | 43 | 0.093023 | 8.0664\% | 8.1814\% | 3.5 | 3.5 | 115\% | 114\% |
| 84 | 5 | 43 | 0.116279 | 8.9133\% | 8.8833\% | 3.8 | 3.8 | 130\% | 131\% |
| 85 | 2 | 41 | 0.048780 | 9.7162\% | 9.5853\% | 4.0 | 3.9 | 50\% | 51\% |
| 86 | 3 | 40 | 0.075000 | 10.3681\% | 10.2872\% | 4.1 | 4.1 | 72\% | 73\% |
| 87 | 3 | 40 | 0.075000 | 11.2988\% | 10.9891\% | 4.5 | 4.4 | 66\% | 68\% |
| 88 | 1 | 28 | 0.035714 | 12.2125\% | 12.0588\% | 3.4 | 3.4 | 29\% | 30\% |
| 89 | 5 | 22 | 0.227273 | 13.6802\% | 13.1284\% | 3.0 | 2.9 | 166\% | 173\% |
| 90 | 4 | 17 | 0.235294 | 15.3234\% | 14.1981\% | 2.6 | 2.4 | 154\% | 166\% |
| 91 | 0 | 11 | 0.000000 | 17.2895\% | 15.2677\% | 1.9 | 1.7 | 0\% | 0\% |
| 92 | 2 | 11 | 0.181818 | 18.8204\% | 16.3374\% | 2.1 | 1.8 | 97\% | 111\% |
| 93 | 3 | 11 | 0.272727 | 20.0298\% | 17.8873\% | 2.2 | 2.0 | 136\% | 152\% |
| 94 | 2 | 9 | 0.222222 | 21.1824\% | 19.4373\% | 1.9 | 1.7 | 105\% | 114\% |
| 95 | 3 | 9 | 0.333333 | 22.6541\% | 20.9872\% | 2.0 | 1.9 | 147\% | 159\% |
| 96 | 1 | 5 | 0.200000 | 23.3742\% | 22.5371\% | 1.2 | 1.1 | 86\% | 89\% |
| 97 | 2 | 4 | 0.500000 | 23.4718\% | 24.0870\% | 0.9 | 1.0 | 213\% | 208\% |
| 98 | 0 | 1 | 0.000000 | 23.4917\% | 26.2437\% | 0.2 | 0.3 | 0\% | 0\% |
| 99 | 0 | 2 | 0.000000 | 24.8039\% | 28.4003\% | 0.5 | 0.6 | 0\% | 0\% |
| Subtotal | 371 | 10,523 |  |  |  | 318.3 | 362.4 | 117\% | 102\% |
| 100 or more | 3 | 12 | 0.250000 | 25.4498\% | 34.8703\% | 3.1 | 4.2 | 98\% | 72\% |
| Total | 374 | 10,535 |  |  |  | 321.4 | 366.6 | 116\% | 102\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN AND WOMEN

|  | TABLE 2C |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 1 | 95 | 0.010526 | 1.4564\% | 0.5788\% | 1.4 | 0.5 | 72\% | 182\% |
| 42 | 3 | 125 | 0.024000 | 1.4955\% | 0.7610\% | 1.9 | 1.0 | 160\% | 315\% |
| 43 | 5 | 145 | 0.034483 | 1.5313\% | 0.8955\% | 2.2 | 1.3 | 225\% | 385\% |
| 44 | 2 | 189 | 0.010582 | 1.5648\% | 1.0207\% | 3.0 | 1.9 | 68\% | 104\% |
| 45 | 4 | 215 | 0.018605 | 1.6072\% | 1.1407\% | 3.5 | 2.5 | 116\% | 163\% |
| 46 | 6 | 252 | 0.023810 | 1.6519\% | 1.2916\% | 4.2 | 3.3 | 144\% | 184\% |
| 47 | 7 | 281 | 0.024911 | 1.6967\% | 1.4270\% | 4.8 | 4.0 | 147\% | 175\% |
| 48 | 2 | 335 | 0.005970 | 1.7466\% | 1.5383\% | 5.9 | 5.2 | 34\% | 39\% |
| 49 | 6 | 410 | 0.014634 | 1.7958\% | 1.6578\% | 7.4 | 6.8 | 81\% | 88\% |
| 50 | 11 | 494 | 0.022267 | 1.8386\% | 1.7515\% | 9.1 | 8.7 | 121\% | 127\% |
| 51 | 6 | 543 | 0.011050 | 1.9226\% | 1.8384\% | 10.4 | 10.0 | 57\% | 60\% |
| 52 | 16 | 604 | 0.026490 | 1.9859\% | 1.9555\% | 12.0 | 11.8 | 133\% | 135\% |
| 53 | 17 | 635 | 0.026772 | 2.0794\% | 2.0258\% | 13.2 | 12.9 | 129\% | 132\% |
| 54 | 21 | 702 | 0.029915 | 2.1667\% | 2.1238\% | 15.2 | 14.9 | 138\% | 141\% |
| 55 | 19 | 788 | 0.024112 | 2.2591\% | 2.2237\% | 17.8 | 17.5 | 107\% | 108\% |
| 56 | 13 | 852 | 0.015258 | 2.3381\% | 2.3060\% | 19.9 | 19.6 | 65\% | 66\% |
| 57 | 17 | 889 | 0.019123 | 2.4095\% | 2.4020\% | 21.4 | 21.4 | 79\% | 80\% |
| 58 | 23 | 910 | 0.025275 | 2.5335\% | 2.4818\% | 23.1 | 22.6 | 100\% | 102\% |
| 59 | 28 | 937 | 0.029883 | 2.6245\% | 2.5511\% | 24.6 | 23.9 | 114\% | 117\% |
| 60 | 36 | 985 | 0.036548 | 2.7034\% | 2.6309\% | 26.6 | 25.9 | 135\% | 139\% |
| 61 | 33 | 1,017 | 0.032448 | 2.8333\% | 2.7125\% | 28.8 | 27.6 | 115\% | 120\% |
| 62 | 27 | 1,041 | 0.025937 | 2.9350\% | 2.7908\% | 30.6 | 29.1 | 88\% | 93\% |
| 63 | 27 | 983 | 0.027467 | 3.0699\% | 2.8905\% | 30.2 | 28.4 | 89\% | 95\% |
| 64 | 33 | 939 | 0.035144 | 3.2172\% | 3.0027\% | 30.2 | 28.2 | 109\% | 117\% |
| 65 | 33 | 860 | 0.038372 | 3.3532\% | 3.1113\% | 28.8 | 26.8 | 114\% | 123\% |
| 66 | 25 | 821 | 0.030451 | 3.4669\% | 3.2219\% | 28.5 | 26.5 | 88\% | 95\% |
| 67 | 31 | 772 | 0.040155 | 3.5529\% | 3.3285\% | 27.4 | 25.7 | 113\% | 121\% |
| 68 | 37 | 746 | 0.049598 | 3.6599\% | 3.5017\% | 27.3 | 26.1 | 136\% | 142\% |
| 69 | 32 | 710 | 0.045070 | 3.7342\% | 3.6752\% | 26.5 | 26.1 | 121\% | 123\% |
| 70 | 27 | 635 | 0.042520 | 3.8191\% | 3.8520\% | 24.3 | 24.5 | 111\% | 110\% |
| 71 | 26 | 601 | 0.043261 | 3.9548\% | 4.0280\% | 23.8 | 24.2 | 109\% | 107\% |
| 72 | 24 | 535 | 0.044860 | 4.1143\% | 4.2059\% | 22.0 | 22.5 | 109\% | 107\% |
| 73 | 18 | 492 | 0.036585 | 4.3293\% | 4.5225\% | 21.3 | 22.3 | 85\% | 81\% |
| 74 | 26 | 434 | 0.059908 | 4.5865\% | 4.8341\% | 19.9 | 21.0 | 131\% | 124\% |
| 75 | 16 | 376 | 0.042553 | 4.9327\% | 5.1493\% | 18.5 | 19.4 | 86\% | 83\% |
| 76 | 12 | 335 | 0.035821 | 5.3053\% | 5.4625\% | 17.8 | 18.3 | 68\% | 66\% |
| 77 | 17 | 295 | 0.057627 | 5.6731\% | 5.7576\% | 16.7 | 17.0 | 102\% | 100\% |
| 78 | 12 | 261 | 0.045977 | 6.3187\% | 6.3283\% | 16.5 | 16.5 | 73\% | 73\% |
| 79 | 17 | 243 | 0.069959 | 6.8349\% | 6.8285\% | 16.6 | 16.6 | 102\% | 102\% |
| 80 | 13 | 215 | 0.060465 | 7.5580\% | 7.3804\% | 16.2 | 15.9 | 80\% | 82\% |
| 81 | 8 | 206 | 0.038835 | 8.4326\% | 7.9825\% | 17.4 | 16.4 | 46\% | 49\% |
| 82 | 16 | 193 | 0.082902 | 9.2391\% | 8.5215\% | 17.8 | 16.4 | 90\% | 97\% |
| 83 | 15 | 162 | 0.092593 | 10.0621\% | 9.3563\% | 16.3 | 15.2 | 92\% | 99\% |
| 84 | 14 | 139 | 0.100719 | 10.8729\% | 10.1005\% | 15.1 | 14.0 | 93\% | 100\% |
| 85 | 10 | 121 | 0.082645 | 11.6896\% | 10.8581\% | 14.1 | 13.1 | 71\% | 76\% |
| 86 | 9 | 100 | 0.090000 | 12.1973\% | 11.5401\% | 12.2 | 11.5 | 74\% | 78\% |
| 87 | 9 | 95 | 0.094737 | 12.8765\% | 12.2924\% | 12.2 | 11.7 | 74\% | 77\% |
| 88 | 7 | 74 | 0.094595 | 13.8156\% | 13.5771\% | 10.2 | 10.0 | 68\% | 70\% |
| 89 | 16 | 63 | 0.253968 | 14.8469\% | 14.8426\% | 9.4 | 9.4 | 171\% | 171\% |
| 90 | 12 | 46 | 0.260870 | 15.9472\% | 15.9794\% | 7.3 | 7.4 | 164\% | 163\% |
| 91 | 6 | 29 | 0.206897 | 17.8191\% | 17.1404\% | 5.2 | 5.0 | 116\% | 121\% |
| 92 | 2 | 24 | 0.083333 | 19.6474\% | 18.0753\% | 4.7 | 4.3 | 42\% | 46\% |
| 93 | 6 | 23 | 0.260870 | 21.2316\% | 19.6754\% | 4.9 | 4.5 | 123\% | 133\% |
| 94 | 3 | 19 | 0.157895 | 22.8095\% | 21.3560\% | 4.3 | 4.1 | 69\% | 74\% |
| 95 | 6 | 17 | 0.352941 | 24.4213\% | 22.8057\% | 4.2 | 3.9 | 145\% | 155\% |
| 96 | 2 | 8 | 0.250000 | 25.1856\% | 24.0682\% | 2.0 | 1.9 | 99\% | 104\% |
| 97 | 3 | 6 | 0.500000 | 25.6011\% | 25.5209\% | 1.5 | 1.5 | 195\% | 196\% |
| 98 | 0 | 1 | 0.000000 | 23.4917\% | 26.2437\% | 0.2 | 0.3 | 0\% | 0\% |
| 99 | 0 | 2 | 0.000000 | 24.8039\% | 28.4003\% | 0.5 | 0.6 | 0\% | 0\% |
| Subtotal | 873 | 24,025 |  |  |  | 859.0 | 829.2 | 102\% | 105\% |
| 100 or more | 3 | 12 | 0.250000 | 25.4498\% | 34.8703\% | 3.1 | 4.2 | 98\% | 72\% |
| Total | 876 | 24,037 |  |  |  | 862.0 | 833.4 | 102\% | 105\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN

|  | TABLE 2A GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \begin{array}{l} \text { (2) } /(3) \end{array} \\ & \hline \end{aligned}$ | Expected $(7) /(3)$ | Proposed (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 7 | 338 | 0.020710 | 1.5139\% | 0.6449\% | 5.1 | 2.2 | 137\% | 321\% |
| 45-49 | 11 | 855 | 0.012865 | 1.7290\% | 1.1998\% | 14.8 | 10.3 | 74\% | 107\% |
| 50-54 | 38 | 1,740 | 0.021839 | 2.1841\% | 1.7112\% | 38.0 | 29.8 | 100\% | 128\% |
| 55-59 | 48 | 2,378 | 0.020185 | 2.7739\% | 2.1548\% | 66.0 | 51.2 | 73\% | 94\% |
| 60-64 | 82 | 2,741 | 0.029916 | 3.2838\% | 2.6285\% | 90.0 | 72.0 | 91\% | 114\% |
| 65-69 | 92 | 2,018 | 0.045590 | 3.8941\% | 3.2873\% | 78.6 | 66.3 | 117\% | 139\% |
| 70-74 | 76 | 1,498 | 0.050734 | 4.5246\% | 4.3589\% | 67.8 | 65.3 | 112\% | 116\% |
| 75-79 | 43 | 913 | 0.047097 | 6.4172\% | 6.1257\% | 58.6 | 55.9 | 73\% | 77\% |
| 80-84 | 45 | 644 | 0.069876 | 9.8522\% | 8.9552\% | 63.4 | 57.7 | 71\% | 78\% |
| 85-89 | 37 | 282 | 0.131206 | 13.8553\% | 13.1379\% | 39.1 | 37.0 | 95\% | 100\% |
| 90-94 | 18 | 82 | 0.219512 | 19.2060\% | 19.0672\% | 15.7 | 15.6 | 114\% | 115\% |
| 95-99 | 5 | 13 | 0.384615 | 27.3544\% | 25.8037\% | 3.6 | 3.4 | 141\% | 149\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 502 | 13,502 |  |  |  | 540.7 | 466.8 | 93\% | 108\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL MORTALITY EXPERIENCE OF DISABILITY RETIREES WOMEN

|  | TABLE 2B GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected $(7) /(3)$ | Proposed (8) / (3) | Expected | Proposed | Expected (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 4 | 216 | 0.018519 | 1.5342\% | 1.1800\% | 3.3 | 2.5 | 121\% | 157\% |
| 45-49 | 14 | 638 | 0.021944 | 1.6954\% | 1.7882\% | 10.8 | 11.4 | 129\% | 123\% |
| 50-54 | 33 | 1,238 | 0.026656 | 1.7712\% | 2.2976\% | 21.9 | 28.4 | 150\% | 116\% |
| 55-59 | 52 | 1,998 | 0.026026 | 2.0434\% | 2.6913\% | 40.8 | 53.8 | 127\% | 97\% |
| 60-64 | 74 | 2,224 | 0.033273 | 2.5348\% | 3.0178\% | 56.4 | 67.1 | 131\% | 110\% |
| 65-69 | 66 | 1,891 | 0.034902 | 3.1709\% | 3.4259\% | 60.0 | 64.8 | 110\% | 102\% |
| 70-74 | 45 | 1,199 | 0.037531 | 3.6246\% | 4.0955\% | 43.5 | 49.1 | 104\% | 92\% |
| 75-79 | 31 | 597 | 0.051926 | 4.6175\% | 5.3313\% | 27.6 | 31.8 | 112\% | 97\% |
| 80-84 | 21 | 271 | 0.077491 | 7.1654\% | 7.4846\% | 19.4 | 20.3 | 108\% | 104\% |
| 85-89 | 14 | 171 | 0.081871 | 11.1576\% | 10.9387\% | 19.1 | 18.7 | 73\% | 75\% |
| 90-94 | 11 | 59 | 0.186441 | 18.1132\% | 16.2834\% | 10.7 | 9.6 | 103\% | 114\% |
| 95-99 | 6 | 21 | 0.285714 | 23.2259\% | 22.9030\% | 4.9 | 4.8 | 123\% | 125\% |
| 100+ | 3 | 12 | 0.250000 | 25.4498\% | 34.8703\% | 3.1 | 4.2 | 98\% | 72\% |
| Total | 374 | 10,535 |  |  |  | 321.4 | 366.6 | 116\% | 102\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL MORTALITY EXPERIENCE OF DISABILITY RETIREES

MEN AND WOMEN

| Age | TABLE 2C GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \quad(2) /(\mathbf{3}) \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | Proposed (8) / (3) | Expected | Proposed | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 11 | 554 | 0.019856 | 1.5218\% | 0.8536\% | 8.4 | 4.7 | 130\% | 233\% |
| 45-49 | 25 | 1,493 | 0.016745 | 1.7147\% | 1.4513\% | 25.6 | 21.7 | 98\% | 115\% |
| 50-54 | 71 | 2,978 | 0.023842 | 2.0125\% | 1.9550\% | 59.9 | 58.2 | 118\% | 122\% |
| 55-59 | 100 | 4,376 | 0.022852 | 2.4404\% | 2.3997\% | 106.8 | 105.0 | 94\% | 95\% |
| 60-64 | 156 | 4,965 | 0.031420 | 2.9483\% | 2.8029\% | 146.4 | 139.2 | 107\% | 112\% |
| 65-69 | 158 | 3,909 | 0.040420 | 3.5442\% | 3.3543\% | 138.5 | 131.1 | 114\% | 120\% |
| 70-74 | 121 | 2,697 | 0.044865 | 4.1245\% | 4.2418\% | 111.2 | 114.4 | 109\% | 106\% |
| 75-79 | 74 | 1,510 | 0.049007 | 5.7057\% | 5.8116\% | 86.2 | 87.8 | 86\% | 84\% |
| 80-84 | 66 | 915 | 0.072131 | 9.0564\% | 8.5197\% | 82.9 | 78.0 | 80\% | 85\% |
| 85-89 | 51 | 453 | 0.112583 | 12.8370\% | 12.3078\% | 58.2 | 55.8 | 88\% | 91\% |
| 90-94 | 29 | 141 | 0.205674 | 18.7487\% | 17.9023\% | 26.4 | 25.2 | 110\% | 115\% |
| 95-99 | 11 | 34 | 0.323529 | 24.8045\% | 24.0121\% | 8.4 | 8.2 | 130\% | 135\% |
| 100+ | 3 | 12 | 0.250000 | 25.4498\% | 34.8703\% | 3.1 | 4.2 | 98\% | 72\% |
| Total | 876 | 24,037 |  |  |  | 862.0 | 833.4 | 102\% | 105\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN

| Age | TABLE 2A |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 2 | 198 | 0.010101 | 1.4841\% | 0.4643\% | 2.9 | 0.9 | 68\% | 218\% |
| 42 | 4 | 225 | 0.017778 | 1.5295\% | 0.6030\% | 3.4 | 1.4 | 116\% | 295\% |
| 43 | 4 | 258 | 0.015504 | 1.5760\% | 0.7413\% | 4.1 | 1.9 | 98\% | 209\% |
| 44 | 6 | 320 | 0.018750 | 1.6237\% | 0.8782\% | 5.2 | 2.8 | 115\% | 214\% |
| 45 | 7 | 362 | 0.019337 | 1.6723\% | 1.0132\% | 6.1 | 3.7 | 116\% | 191\% |
| 46 | 3 | 415 | 0.007229 | 1.7246\% | 1.1457\% | 7.2 | 4.8 | 42\% | 63\% |
| 47 | 6 | 474 | 0.012658 | 1.7766\% | 1.2757\% | 8.4 | 6.0 | 71\% | 99\% |
| 48 | 3 | 544 | 0.005515 | 1.8563\% | 1.3794\% | 10.1 | 7.5 | 30\% | 40\% |
| 49 | 8 | 604 | 0.013245 | 1.9372\% | 1.4804\% | 11.7 | 8.9 | 68\% | 89\% |
| 50 | 11 | 702 | 0.015670 | 2.0191\% | 1.5788\% | 14.2 | 11.1 | 78\% | 99\% |
| 51 | 14 | 781 | 0.017926 | 2.1466\% | 1.6744\% | 16.8 | 13.1 | 84\% | 107\% |
| 52 | 23 | 845 | 0.027219 | 2.2787\% | 1.7670\% | 19.3 | 14.9 | 119\% | 154\% |
| 53 | 25 | 925 | 0.027027 | 2.4295\% | 1.8420\% | 22.5 | 17.0 | 111\% | 147\% |
| 54 | 25 | 1,016 | 0.024606 | 2.5864\% | 1.9177\% | 26.3 | 19.5 | 95\% | 128\% |
| 55 | 30 | 1,076 | 0.027881 | 2.7631\% | 1.9960\% | 29.7 | 21.5 | 101\% | 140\% |
| 56 | 35 | 1,153 | 0.030356 | 2.8401\% | 2.0785\% | 32.7 | 24.0 | 107\% | 146\% |
| 57 | 28 | 1,169 | 0.023952 | 2.9177\% | 2.1668\% | 34.1 | 25.3 | 82\% | 111\% |
| 58 | 33 | 1,212 | 0.027228 | 2.9966\% | 2.2656\% | 36.3 | 27.5 | 91\% | 120\% |
| 59 | 30 | 1,231 | 0.024370 | 3.0609\% | 2.3705\% | 37.7 | 29.2 | 80\% | 103\% |
| 60 | 53 | 1,254 | 0.042265 | 3.1259\% | 2.4814\% | 39.2 | 31.1 | 135\% | 170\% |
| 61 | 39 | 1,257 | 0.031026 | 3.2804\% | 2.5964\% | 41.2 | 32.6 | 95\% | 119\% |
| 62 | 35 | 1,245 | 0.028112 | 3.4252\% | 2.7138\% | 42.6 | 33.8 | 82\% | 104\% |
| 63 | 32 | 1,202 | 0.026622 | 3.5954\% | 2.8702\% | 43.2 | 34.5 | 74\% | 93\% |
| 64 | 45 | 1,147 | 0.039233 | 3.7564\% | 3.0262\% | 43.1 | 34.7 | 104\% | 130\% |
| 65 | 49 | 1,103 | 0.044424 | 3.9277\% | 3.1809\% | 43.3 | 35.1 | 113\% | 140\% |
| 66 | 47 | 1,016 | 0.046260 | 4.0033\% | 3.3338\% | 40.7 | 33.9 | 116\% | 139\% |
| 67 | 37 | 937 | 0.039488 | 4.0644\% | 3.4857\% | 38.1 | 32.7 | 97\% | 113\% |
| 68 | 41 | 879 | 0.046644 | 4.1476\% | 3.7241\% | 36.5 | 32.7 | 112\% | 125\% |
| 69 | 41 | 846 | 0.048463 | 4.1821\% | 3.9627\% | 35.4 | 33.5 | 116\% | 122\% |
| 70 | 33 | 765 | 0.043137 | 4.2681\% | 4.2004\% | 32.7 | 32.1 | 101\% | 103\% |
| 71 | 29 | 697 | 0.041607 | 4.4810\% | 4.4379\% | 31.2 | 30.9 | 93\% | 94\% |
| 72 | 25 | 647 | 0.038640 | 4.7452\% | 4.6748\% | 30.7 | 30.2 | 81\% | 83\% |
| 73 | 28 | 612 | 0.045752 | 5.0334\% | 5.0643\% | 30.8 | 31.0 | 91\% | 90\% |
| 74 | 32 | 572 | 0.055944 | 5.3469\% | 5.4526\% | 30.6 | 31.2 | 105\% | 103\% |
| 75 | 31 | 523 | 0.059273 | 5.7161\% | 5.8386\% | 29.9 | 30.5 | 104\% | 102\% |
| 76 | 17 | 490 | 0.034694 | 6.1811\% | 6.2236\% | 30.3 | 30.5 | 56\% | 56\% |
| 77 | 29 | 456 | 0.063596 | 6.7210\% | 6.6054\% | 30.6 | 30.1 | 95\% | 96\% |
| 78 | 26 | 418 | 0.062201 | 7.3098\% | 7.2148\% | 30.6 | 30.2 | 85\% | 86\% |
| 79 | 27 | 383 | 0.070496 | 7.9507\% | 7.8215\% | 30.5 | 30.0 | 89\% | 90\% |
| 80 | 28 | 343 | 0.081633 | 8.6468\% | 8.4262\% | 29.7 | 28.9 | 94\% | 97\% |
| 81 | 14 | 326 | 0.042945 | 9.4016\% | 9.0276\% | 30.6 | 29.4 | 46\% | 48\% |
| 82 | 33 | 298 | 0.110738 | 10.2172\% | 9.6264\% | 30.4 | 28.7 | 108\% | 115\% |
| 83 | 32 | 256 | 0.125000 | 11.0462\% | 10.5450\% | 28.3 | 27.0 | 113\% | 119\% |
| 84 | 18 | 211 | 0.085308 | 12.0010\% | 11.4610\% | 25.3 | 24.2 | 71\% | 74\% |
| 85 | 17 | 175 | 0.097143 | 12.9715\% | 12.3743\% | 22.7 | 21.7 | 75\% | 79\% |
| 86 | 17 | 145 | 0.117241 | 13.7025\% | 13.2837\% | 19.9 | 19.3 | 86\% | 88\% |
| 87 | 13 | 114 | 0.114035 | 14.2795\% | 14.1888\% | 16.3 | 16.2 | 80\% | 80\% |
| 88 | 10 | 95 | 0.105263 | 15.0155\% | 15.5101\% | 14.3 | 14.7 | 70\% | 68\% |
| 89 | 19 | 79 | 0.240506 | 15.7075\% | 16.8210\% | 12.4 | 13.3 | 153\% | 143\% |
| 90 | 11 | 53 | 0.207547 | 16.5102\% | 18.1205\% | 8.8 | 9.6 | 126\% | 115\% |
| 91 | 11 | 38 | 0.289474 | 18.3623\% | 19.4074\% | 7.0 | 7.4 | 158\% | 149\% |
| 92 | 3 | 25 | 0.120000 | 20.5314\% | 20.6763\% | 5.1 | 5.2 | 58\% | 58\% |
| 93 | 3 | 19 | 0.157895 | 22.5354\% | 22.4555\% | 4.3 | 4.3 | 70\% | 70\% |
| 94 | 3 | 13 | 0.230769 | 24.4937\% | 24.2273\% | 3.2 | 3.1 | 94\% | 95\% |
| 95 | 5 | 11 | 0.454545 | 26.5684\% | 25.9989\% | 2.9 | 2.9 | 171\% | 175\% |
| 96 | 3 | 5 | 0.600000 | 28.3744\% | 27.7814\% | 1.4 | 1.4 | 211\% | 216\% |
| 97 | 1 | 2 | 0.500000 | 30.0395\% | 29.5550\% | 0.6 | 0.6 | 166\% | 169\% |
| 98 | 0 | 0 | N/A | 31.7925\% | 31.9759\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 33.1018\% | 34.3885\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 1,234 | 32,167 |  |  |  | 1,302.9 | 1,140.0 | 95\% | 108\% |
| 100 or more | 0 | 0 | N/A | 37.1685\% | 41.8491\% | 0 | 0 | 0\% | 0\% |
| Total | 1,234 | 32,167 |  |  |  | 1,302.9 | 1,140.0 | 95\% | 108\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL MORTALITY EXPERIENCE OF DISABILITY RETIREES WOMEN

|  | TABLE 2B |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 103 | 0.000000 | 1.5525\% | 0.9910\% | 1.6 | 1.0 | 0\% | 0\% |
| 42 | 1 | 138 | 0.007246 | 1.5823\% | 1.1369\% | 2.2 | 1.6 | 46\% | 64\% |
| 43 | 4 | 168 | 0.023810 | 1.6123\% | 1.2792\% | 2.7 | 2.1 | 148\% | 186\% |
| 44 | 0 | 203 | 0.000000 | 1.6355\% | 1.4176\% | 3.3 | 2.9 | 0\% | 0\% |
| 45 | 2 | 230 | 0.008696 | 1.6857\% | 1.5526\% | 3.9 | 3.6 | 52\% | 56\% |
| 46 | 9 | 270 | 0.033333 | 1.7372\% | 1.6837\% | 4.7 | 4.5 | 192\% | 198\% |
| 47 | 8 | 304 | 0.026316 | 1.7899\% | 1.8115\% | 5.4 | 5.5 | 147\% | 145\% |
| 48 | 6 | 341 | 0.017595 | 1.8139\% | 1.9058\% | 6.2 | 6.5 | 97\% | 92\% |
| 49 | 9 | 416 | 0.021635 | 1.8405\% | 2.0007\% | 7.7 | 8.3 | 118\% | 108\% |
| 50 | 12 | 472 | 0.025424 | 1.8353\% | 2.0987\% | 8.7 | 9.9 | 139\% | 121\% |
| 51 | 9 | 521 | 0.017274 | 1.8563\% | 2.2008\% | 9.7 | 11.5 | 93\% | 78\% |
| 52 | 19 | 593 | 0.032040 | 1.8450\% | 2.3092\% | 10.9 | 13.7 | 174\% | 139\% |
| 53 | 19 | 645 | 0.029457 | 1.8316\% | 2.3940\% | 11.8 | 15.4 | 161\% | 123\% |
| 54 | 23 | 730 | 0.031507 | 1.8548\% | 2.4855\% | 13.5 | 18.1 | 170\% | 127\% |
| 55 | 23 | 815 | 0.028221 | 1.8755\% | 2.5832\% | 15.3 | 21.1 | 150\% | 109\% |
| 56 | 19 | 891 | 0.021324 | 1.9362\% | 2.6856\% | 17.3 | 23.9 | 110\% | 79\% |
| 57 | 21 | 956 | 0.021967 | 2.0283\% | 2.7913\% | 19.4 | 26.7 | 108\% | 79\% |
| 58 | 37 | 988 | 0.037449 | 2.2025\% | 2.8828\% | 21.8 | 28.5 | 170\% | 130\% |
| 59 | 41 | 998 | 0.041082 | 2.3011\% | 2.9744\% | 23.0 | 29.7 | 179\% | 138\% |
| 60 | 40 | 1,043 | 0.038351 | 2.4029\% | 3.0636\% | 25.1 | 32.0 | 160\% | 125\% |
| 61 | 33 | 1,064 | 0.031015 | 2.5083\% | 3.1501\% | 26.7 | 33.5 | 124\% | 98\% |
| 62 | 37 | 1,083 | 0.034164 | 2.5622\% | 3.2323\% | 27.7 | 35.0 | 133\% | 106\% |
| 63 | 30 | 1,025 | 0.029268 | 2.6166\% | 3.3266\% | 26.8 | 34.1 | 112\% | 88\% |
| 64 | 32 | 996 | 0.032129 | 2.7909\% | 3.4169\% | 27.8 | 34.0 | 115\% | 94\% |
| 65 | 37 | 931 | 0.039742 | 2.9141\% | 3.5037\% | 27.1 | 32.6 | 136\% | 113\% |
| 66 | 21 | 871 | 0.024110 | 3.1089\% | 3.5883\% | 27.1 | 31.3 | 78\% | 67\% |
| 67 | 35 | 817 | 0.042840 | 3.2481\% | 3.6707\% | 26.5 | 30.0 | 132\% | 117\% |
| 68 | 25 | 737 | 0.033921 | 3.3962\% | 3.8133\% | 25.0 | 28.1 | 100\% | 89\% |
| 69 | 34 | 672 | 0.050595 | 3.4785\% | 3.9553\% | 23.4 | 26.6 | 145\% | 128\% |
| 70 | 17 | 586 | 0.029010 | 3.5632\% | 4.0962\% | 20.9 | 24.0 | 81\% | 71\% |
| 71 | 16 | 538 | 0.029740 | 3.6366\% | 4.2368\% | 19.6 | 22.8 | 82\% | 70\% |
| 72 | 26 | 458 | 0.056769 | 3.6748\% | 4.3767\% | 16.8 | 20.0 | 154\% | 130\% |
| 73 | 16 | 403 | 0.039702 | 3.7508\% | 4.6388\% | 15.1 | 18.7 | 106\% | 86\% |
| 74 | 14 | 349 | 0.040115 | 3.9370\% | 4.8993\% | 13.7 | 17.1 | 102\% | 82\% |
| 75 | 14 | 306 | 0.045752 | 4.2369\% | 5.1602\% | 13.0 | 15.8 | 108\% | 89\% |
| 76 | 12 | 260 | 0.046154 | 4.4942\% | 5.4218\% | 11.7 | 14.1 | 103\% | 85\% |
| 77 | 10 | 230 | 0.043478 | 4.6978\% | 5.6846\% | 10.8 | 13.1 | 93\% | 76\% |
| 78 | 12 | 210 | 0.057143 | 5.1043\% | 6.1456\% | 10.7 | 12.9 | 112\% | 93\% |
| 79 | 16 | 197 | 0.081218 | 5.5196\% | 6.6103\% | 10.9 | 13.0 | 147\% | 123\% |
| 80 | 12 | 166 | 0.072289 | 6.0999\% | 7.0761\% | 10.1 | 11.7 | 119\% | 102\% |
| 81 | 10 | 147 | 0.068027 | 6.7426\% | 7.5453\% | 9.9 | 11.1 | 101\% | 90\% |
| 82 | 15 | 141 | 0.106383 | 7.4535\% | 8.0153\% | 10.5 | 11.3 | 143\% | 133\% |
| 83 | 11 | 114 | 0.096491 | 8.2382\% | 8.7774\% | 9.4 | 10.0 | 117\% | 110\% |
| 84 | 7 | 96 | 0.072917 | 9.1031\% | 9.5393\% | 8.7 | 9.2 | 80\% | 76\% |
| 85 | 8 | 85 | 0.094118 | 9.8932\% | 10.3015\% | 8.4 | 8.8 | 95\% | 91\% |
| 86 | 5 | 79 | 0.063291 | 10.5252\% | 11.0604\% | 8.3 | 8.7 | 60\% | 57\% |
| 87 | 8 | 78 | 0.102564 | 11.4355\% | 11.8114\% | 8.9 | 9.2 | 90\% | 87\% |
| 88 | 6 | 65 | 0.092308 | 12.3603\% | 12.9505\% | 8.0 | 8.4 | 75\% | 71\% |
| 89 | 9 | 56 | 0.160714 | 13.8041\% | 14.0834\% | 7.7 | 7.9 | 116\% | 114\% |
| 90 | 7 | 47 | 0.148936 | 15.4621\% | 15.2059\% | 7.3 | 7.1 | 96\% | 98\% |
| 91 | 2 | 37 | 0.054054 | 17.4460\% | 16.3164\% | 6.5 | 6.0 | 31\% | 33\% |
| 92 | 8 | 34 | 0.235294 | 18.9908\% | 17.4115\% | 6.5 | 5.9 | 124\% | 135\% |
| 93 | 9 | 28 | 0.321429 | 20.1504\% | 19.0011\% | 5.6 | 5.3 | 160\% | 169\% |
| 94 | 3 | 19 | 0.157895 | 21.3100\% | 20.5761\% | 4.0 | 3.9 | 74\% | 77\% |
| 95 | 4 | 16 | 0.250000 | 22.7906\% | 22.1400\% | 3.6 | 3.5 | 110\% | 113\% |
| 96 | 5 | 16 | 0.312500 | 23.5150\% | 23.7098\% | 3.8 | 3.8 | 133\% | 132\% |
| 97 | 2 | 11 | 0.181818 | 23.5424\% | 25.2658\% | 2.6 | 2.8 | 77\% | 72\% |
| 98 | 0 | 8 | 0.000000 | 23.5623\% | 27.4526\% | 1.9 | 2.2 | 0\% | 0\% |
| 99 | 2 | 8 | 0.250000 | 24.8785\% | 29.6244\% | 2.0 | 2.4 | 100\% | 84\% |
| Subtotal | 872 | 23,809 |  |  |  | 729.2 | 862.6 | 120\% | 101\% |
| 100 or more | 5 | 19 | 0.263158 | 25.4498\% | $36.3732 \%$ | 4.8 | 6.9 | 103\% | 72\% |
| Total | 877 | 23,828 |  |  |  | 734.1 | 869.5 | 119\% | 101\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN AND WOMEN

|  | TABLE 2C |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 2 | 301 | 0.006645 | 1.5075\% | 0.6445\% | 4.5 | 1.9 | 44\% | 103\% |
| 42 | 5 | 363 | 0.013774 | 1.5496\% | 0.8060\% | 5.6 | 2.9 | 89\% | 171\% |
| 43 | 8 | 426 | 0.018779 | 1.5903\% | 0.9534\% | 6.8 | 4.1 | 118\% | 197\% |
| 44 | 6 | 523 | 0.011472 | 1.6283\% | 1.0876\% | 8.5 | 5.7 | 70\% | 105\% |
| 45 | 9 | 592 | 0.015203 | 1.6775\% | 1.2227\% | 9.9 | 7.2 | 91\% | 124\% |
| 46 | 12 | 685 | 0.017518 | 1.7296\% | 1.3577\% | 11.8 | 9.3 | 101\% | 129\% |
| 47 | 14 | 778 | 0.017995 | 1.7818\% | 1.4850\% | 13.9 | 11.6 | 101\% | 121\% |
| 48 | 9 | 885 | 0.010169 | 1.8400\% | 1.5822\% | 16.3 | 14.0 | 55\% | 64\% |
| 49 | 17 | 1,020 | 0.016667 | 1.8978\% | 1.6926\% | 19.4 | 17.3 | 88\% | 98\% |
| 50 | 23 | 1,174 | 0.019591 | 1.9452\% | 1.7878\% | 22.8 | 21.0 | 101\% | 110\% |
| 51 | 23 | 1,302 | 0.017665 | 2.0304\% | 1.8850\% | 26.4 | 24.5 | 87\% | 94\% |
| 52 | 42 | 1,438 | 0.029207 | 2.0999\% | 1.9906\% | 30.2 | 28.6 | 139\% | 147\% |
| 53 | 44 | 1,570 | 0.028025 | 2.1839\% | 2.0688\% | 34.3 | 32.5 | 128\% | 135\% |
| 54 | 48 | 1,746 | 0.027491 | 2.2805\% | 2.1551\% | 39.8 | 37.6 | 121\% | 128\% |
| 55 | 53 | 1,891 | 0.028027 | 2.3806\% | 2.2491\% | 45.0 | 42.5 | 118\% | 125\% |
| 56 | 54 | 2,044 | 0.026419 | 2.4461\% | 2.3431\% | 50.0 | 47.9 | 108\% | 113\% |
| 57 | 49 | 2,125 | 0.023059 | 2.5176\% | 2.4477\% | 53.5 | 52.0 | 92\% | 94\% |
| 58 | 70 | 2,200 | 0.031818 | 2.6400\% | 2.5428\% | 58.1 | 55.9 | 121\% | 125\% |
| 59 | 71 | 2,229 | 0.031853 | 2.7207\% | 2.6409\% | 60.6 | 58.9 | 117\% | 121\% |
| 60 | 93 | 2,297 | 0.040488 | 2.7976\% | 2.7458\% | 64.3 | 63.1 | 145\% | 147\% |
| 61 | 72 | 2,321 | 0.031021 | 2.9265\% | 2.8502\% | 67.9 | 66.2 | 106\% | 109\% |
| 62 | 72 | 2,328 | 0.030928 | 3.0237\% | 2.9550\% | 70.4 | 68.8 | 102\% | 105\% |
| 63 | 62 | 2,227 | 0.027840 | 3.1449\% | 3.0803\% | 70.0 | 68.6 | 89\% | 90\% |
| 64 | 77 | 2,143 | 0.035931 | 3.3077\% | 3.2078\% | 70.9 | 68.7 | 109\% | 112\% |
| 65 | 86 | 2,034 | 0.042281 | 3.4638\% | 3.3286\% | 70.5 | 67.7 | 122\% | 127\% |
| 66 | 68 | 1,887 | 0.036036 | 3.5905\% | 3.4513\% | 67.8 | 65.1 | 100\% | 104\% |
| 67 | 72 | 1,754 | 0.041049 | 3.6842\% | 3.5719\% | 64.6 | 62.7 | 111\% | 115\% |
| 68 | 66 | 1,616 | 0.040842 | 3.8049\% | 3.7648\% | 61.5 | 60.8 | 107\% | 108\% |
| 69 | 75 | 1,518 | 0.049407 | 3.8706\% | 3.9594\% | 58.8 | 60.1 | 128\% | 125\% |
| 70 | 50 | 1,351 | 0.037010 | 3.9623\% | 4.1552\% | 53.5 | 56.1 | 93\% | 89\% |
| 71 | 45 | 1,235 | 0.036437 | 4.1132\% | 4.3503\% | 50.8 | 53.7 | 89\% | 84\% |
| 72 | 51 | 1,105 | 0.046154 | 4.3015\% | 4.5512\% | 47.5 | 50.3 | 107\% | 101\% |
| 73 | 44 | 1,015 | 0.043350 | 4.5242\% | 4.8953\% | 45.9 | 49.7 | 96\% | 89\% |
| 74 | 46 | 921 | 0.049946 | 4.8126\% | 5.2429\% | 44.3 | 48.3 | 104\% | 95\% |
| 75 | 45 | 829 | 0.054282 | 5.1701\% | 5.5882\% | 42.9 | 46.3 | 105\% | 97\% |
| 76 | 29 | 750 | 0.038667 | 5.5963\% | 5.9456\% | 42.0 | 44.6 | 69\% | 65\% |
| 77 | 39 | 686 | 0.056851 | 6.0427\% | 6.2967\% | 41.5 | 43.2 | 94\% | 90\% |
| 78 | 38 | 628 | 0.060510 | 6.5723\% | 6.8572\% | 41.3 | 43.1 | 92\% | 88\% |
| 79 | 43 | 580 | 0.074138 | 7.1250\% | 7.4101\% | 41.3 | 43.0 | 104\% | 100\% |
| 80 | 40 | 509 | 0.078585 | 7.8162\% | 7.9859\% | 39.8 | 40.6 | 101\% | 98\% |
| 81 | 24 | 473 | 0.050740 | 8.5752\% | 8.5669\% | 40.6 | 40.5 | 59\% | 59\% |
| 82 | 48 | 439 | 0.109339 | 9.3295\% | 9.1090\% | 41.0 | 40.0 | 117\% | 120\% |
| 83 | 43 | 370 | 0.116216 | 10.1810\% | 10.0004\% | 37.7 | 37.0 | 114\% | 116\% |
| 84 | 25 | 307 | 0.081433 | 11.0948\% | 10.8601\% | 34.1 | 33.3 | 73\% | 75\% |
| 85 | 25 | 260 | 0.096154 | 11.9651\% | 11.6967\% | 31.1 | 30.4 | 80\% | 82\% |
| 86 | 22 | 224 | 0.098214 | 12.5819\% | 12.4996\% | 28.2 | 28.0 | 78\% | 79\% |
| 87 | 21 | 192 | 0.109375 | 13.1241\% | 13.2230\% | 25.2 | 25.4 | 83\% | 83\% |
| 88 | 16 | 160 | 0.100000 | 13.9368\% | 14.4702\% | 22.3 | 23.2 | 72\% | 69\% |
| 89 | 28 | 135 | 0.207407 | 14.9179\% | 15.6854\% | 20.1 | 21.2 | 139\% | 132\% |
| 90 | 18 | 100 | 0.180000 | 16.0176\% | 16.7507\% | 16.0 | 16.8 | 112\% | 107\% |
| 91 | 13 | 75 | 0.173333 | 17.9103\% | 17.8825\% | 13.4 | 13.4 | 97\% | 97\% |
| 92 | 11 | 59 | 0.186441 | 19.6436\% | 18.7949\% | 11.6 | 11.1 | 95\% | 99\% |
| 93 | 12 | 47 | 0.255319 | 21.1145\% | 20.3975\% | 9.9 | 9.6 | 121\% | 125\% |
| 94 | 6 | 32 | 0.187500 | 22.6034\% | 22.0594\% | 7.2 | 7.1 | 83\% | 85\% |
| 95 | 9 | 27 | 0.333333 | 24.3297\% | 23.7121\% | 6.6 | 6.4 | 137\% | 141\% |
| 96 | 8 | 21 | 0.380952 | 24.6720\% | 24.6792\% | 5.2 | 5.2 | 154\% | 154\% |
| 97 | 3 | 13 | 0.230769 | 24.5420\% | 25.9257\% | 3.2 | 3.4 | 94\% | 89\% |
| 98 | 0 | 8 | 0.000000 | 23.5623\% | 27.4526\% | 1.9 | 2.2 | 0\% | 0\% |
| 99 | 2 | 8 | 0.250000 | 24.8785\% | 29.6244\% | 2.0 | 2.4 | 100\% | 84\% |
| Subtotal | 2,106 | 55,976 |  |  |  | 2,032.1 | 2,002.6 | 104\% | 105\% |
| 100 or more | 5 | 19 | 0.263158 | 25.4498\% | $36.3732 \%$ | 4.8 | 6.9 | 103\% | 72\% |
| Total | 2,111 | 55,995 |  |  |  | 2,036.9 | 2,009.5 | 104\% | 105\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN

|  | TABLE 2A GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 16 | 1,001 | 0.015984 | 1.5626\% | 0.6992\% | 15.6 | 7.0 | 102\% | 229\% |
| 45-49 | 27 | 2,399 | 0.011255 | 1.8104\% | 1.2886\% | 43.4 | 30.9 | 62\% | 87\% |
| 50-54 | 98 | 4,269 | 0.022956 | 2.3177\% | 1.7712\% | 98.9 | 75.6 | 99\% | 130\% |
| 55-59 | 156 | 5,841 | 0.026708 | 2.9205\% | 2.1813\% | 170.6 | 127.4 | 91\% | 122\% |
| 60-64 | 204 | 6,105 | 0.033415 | 3.4296\% | 2.7314\% | 209.4 | 166.8 | 97\% | 122\% |
| 65-69 | 215 | 4,781 | 0.044970 | 4.0560\% | 3.5113\% | 193.9 | 167.9 | 111\% | 128\% |
| 70-74 | 147 | 3,293 | 0.044640 | 4.7365\% | 4.7219\% | 156.0 | 155.5 | 94\% | 95\% |
| 75-79 | 130 | 2,270 | 0.057269 | 6.6888\% | 6.6637\% | 151.8 | 151.3 | 86\% | 86\% |
| 80-84 | 125 | 1,434 | 0.087169 | 10.0666\% | 9.6371\% | 144.4 | 138.2 | 87\% | 90\% |
| 85-89 | 76 | 608 | 0.125000 | 14.0660\% | 13.9991\% | 85.5 | 85.1 | 89\% | 89\% |
| 90-94 | 31 | 148 | 0.209459 | 19.1398\% | 19.9756\% | 28.3 | 29.6 | 109\% | 105\% |
| 95-99 | 9 | 18 | 0.500000 | 27.4557\% | 26.8892\% | 4.9 | 4.8 | 182\% | 186\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 1,234 | 32,167 |  |  |  | 1,302.9 | 1,140.0 | 95\% | 108\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL MORTALITY EXPERIENCE OF DISABILITY RETIREES WOMEN

|  | TABLE 2B GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total Exposed | Actual Rate | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 5 | 612 | 0.008170 | 1.6032\% | 1.2445\% | 9.8 | 7.6 | 51\% | 66\% |
| 45-49 | 34 | 1,561 | 0.021781 | 1.7842\% | 1.8223\% | 27.9 | 28.4 | 122\% | 120\% |
| 50-54 | 82 | 2,961 | 0.027693 | 1.8449\% | 2.3185\% | 54.6 | 68.7 | 150\% | 119\% |
| 55-59 | 141 | 4,648 | 0.030336 | 2.0795\% | 2.7933\% | 96.7 | 129.8 | 146\% | 109\% |
| 60-64 | 172 | 5,211 | 0.033007 | 2.5737\% | 3.2356\% | 134.1 | 168.6 | 128\% | 102\% |
| 65-69 | 152 | 4,028 | 0.037736 | 3.2063\% | 3.6879\% | 129.2 | 148.5 | 118\% | 102\% |
| 70-74 | 89 | 2,334 | 0.038132 | 3.6903\% | 4.3974\% | 86.1 | 102.6 | 103\% | 87\% |
| 75-79 | 64 | 1,203 | 0.053200 | 4.7421\% | 5.7265\% | 57.0 | 68.9 | 112\% | 93\% |
| 80-84 | 55 | 664 | 0.082831 | 7.3309\% | 8.0276\% | 48.7 | 53.3 | 113\% | 103\% |
| 85-89 | 36 | 363 | 0.099174 | 11.4072\% | 11.8489\% | 41.4 | 43.0 | 87\% | 84\% |
| 90-94 | 29 | 165 | 0.175758 | 18.1031\% | 17.1718\% | 29.9 | 28.3 | 97\% | 102\% |
| 95-99 | 13 | 59 | 0.220339 | 23.5150\% | 24.8837\% | 13.9 | 14.7 | 94\% | 89\% |
| 100+ | 5 | 19 | 0.263158 | 25.4498\% | 36.3732\% | 4.8 | 6.9 | 103\% | 72\% |
| Total | 877 | 23,828 |  |  |  | 734.1 | 869.5 | 119\% | 101\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL MORTALITY EXPERIENCE OF DISABILITY RETIREES <br> MEN AND WOMEN

| Age | TABLE 2C GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 21 | 1,613 | 0.013019 | 1.5780\% | 0.9061\% | 25.5 | 14.6 | 83\% | 144\% |
| 45-49 | 61 | 3,960 | 0.015404 | 1.8000\% | 1.4990\% | 71.3 | 59.4 | 86\% | 103\% |
| 50-54 | 180 | 7,230 | 0.024896 | 2.1241\% | 1.9953\% | 153.6 | 144.3 | 117\% | 125\% |
| 55-59 | 297 | 10,489 | 0.028315 | 2.5478\% | 2.4525\% | 267.2 | 257.2 | 111\% | 115\% |
| 60-64 | 376 | 11,316 | 0.033227 | 3.0355\% | 2.9636\% | 343.5 | 335.4 | 109\% | 112\% |
| 65-69 | 367 | 8,809 | 0.041662 | 3.6675\% | 3.5921\% | 323.1 | 316.4 | 114\% | 116\% |
| 70-74 | 236 | 5,627 | 0.041941 | 4.3026\% | 4.5873\% | 242.1 | 258.1 | 97\% | 91\% |
| 75-79 | 194 | 3,473 | 0.055859 | 6.0145\% | 6.3391\% | 208.9 | 220.2 | 93\% | 88\% |
| 80-84 | 180 | 2,098 | 0.085796 | 9.2008\% | 9.1277\% | 193.0 | 191.5 | 93\% | 94\% |
| 85-89 | 112 | 971 | 0.115345 | 13.0720\% | 13.1953\% | 126.9 | 128.1 | 88\% | 87\% |
| 90-94 | 60 | 313 | 0.191693 | 18.5933\% | 18.4976\% | 58.2 | 57.9 | 103\% | 104\% |
| 95-99 | 22 | 77 | 0.285714 | 24.4362\% | 25.3525\% | 18.8 | 19.5 | 117\% | 113\% |
| 100+ | 5 | 19 | 0.263158 | 25.4498\% | 36.3732\% | 4.8 | 6.9 | 103\% | 72\% |
| Total | 2,111 | 55,995 |  |  |  | 2,036.9 | 2,009.5 | 104\% | 105\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN AND WOMEN

| Plan Year Ending June 30, | TABLE 2D <br> Life Years Exposed | Actual <br> Deaths | Expected Deaths | 10-YEAR PERIOD ENDING 6/30/2013$\qquad$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / Expected | $\begin{aligned} & \hline \text { Actual } \\ & \text { (3) / (2) } \\ & \hline \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 5,029 | 196 | 145.8 | 134\% | 3.8974\% | 2.8985\% |
| 2005 | 5,283 | 199 | 153.3 | 130\% | 3.7668\% | 2.9019\% |
| 2006 | 5,380 | 197 | 158.1 | 125\% | 3.6617\% | 2.9384\% |
| 2007 | 5,507 | 245 | 163.7 | 150\% | 4.4489\% | 2.9720\% |
| 2008 | 5,654 | 218 | 168.4 | 129\% | 3.8557\% | 2.9787\% |
| 2009 | 5,816 | 185 | 174.4 | 106\% | 3.1809\% | 2.9981\% |
| 2010 | 5,960 | 198 | 180.8 | 110\% | 3.3221\% | 3.0338\% |
| 2011 | 6,027 | 199 | 184.6 | 108\% | 3.3018\% | 3.0635\% |
| 2012 | 6,043 | 195 | 189.0 | 103\% | 3.2269\% | 3.1272\% |
| 2013 | 6,258 | 285 | 197.3 | 144\% | 4.5542\% | 3.1535\% |
| Total | 56,957 | 2,117 | 1,715.4 | 123\% | 3.7168\% | 3.0117\% |

[^1]NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS

MEN


NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS WOMEN

| Service | TABLE 3B |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Withdrawals | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2)/(3) } \\ & \hline \end{aligned}$ | Assumed Probability |  | Expected Withdrawals |  | Actual/Expected |  |
|  |  |  |  | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | Proposed $\text { (3) } \times(6)$ | $\begin{aligned} & \text { Expected } \\ & (2) /(7) \\ & \hline \end{aligned}$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 0 | 644 | 9,045 | 0.0712 | 6.00\% | 6.80\% | 542.7 | 615.1 | 119\% | 105\% |
| 1 | 1,279 | 18,483 | 0.0692 | 5.00\% | 5.80\% | 924.2 | 1,072.0 | 138\% | 119\% |
| 2 | 1,194 | 19,321 | 0.0618 | 4.00\% | 4.80\% | 772.8 | 927.4 | 154\% | 129\% |
| 3 | 834 | 17,296 | 0.0482 | 3.00\% | 4.00\% | 518.9 | 691.8 | 161\% | 121\% |
| 4 | 640 | 13,387 | 0.0478 | 3.00\% | 3.60\% | 401.6 | 481.9 | 159\% | 133\% |
| 5 | 522 | 12,675 | 0.0412 | 3.00\% | 3.30\% | 380.3 | 418.3 | 137\% | 125\% |
| 6 | 445 | 11,813 | 0.0377 | 2.80\% | 3.10\% | 330.8 | 366.2 | 135\% | 122\% |
| 7 | 398 | 11,228 | 0.0354 | 2.60\% | 2.90\% | 291.9 | 325.6 | 136\% | 122\% |
| 8 | 307 | 10,889 | 0.0282 | 2.40\% | 2.64\% | 261.3 | 287.5 | 117\% | 107\% |
| 9 | 303 | 9,690 | 0.0313 | 2.20\% | 2.42\% | 213.2 | 234.5 | 142\% | 129\% |
| 10 | 235 | 8,283 | 0.0284 | 2.00\% | 2.20\% | 165.7 | 182.2 | 142\% | 129\% |
| 11 | 181 | 6,829 | 0.0265 | 1.90\% | 2.09\% | 129.8 | 142.7 | 139\% | 127\% |
| 12 | 142 | 6,412 | 0.0221 | 1.80\% | 1.98\% | 115.4 | 127.0 | 123\% | 112\% |
| 13 | 138 | 6,045 | 0.0228 | 1.70\% | 1.87\% | 102.8 | 113.0 | 134\% | 122\% |
| 14 | 133 | 5,963 | 0.0223 | 1.60\% | 1.76\% | 95.4 | 104.9 | 139\% | 127\% |
| 15 | 102 | 5,948 | 0.0171 | 1.50\% | 1.65\% | 89.2 | 98.1 | 114\% | 104\% |
| 16 | 95 | 5,477 | 0.0173 | 1.40\% | 1.54\% | 76.7 | 84.3 | 124\% | 113\% |
| 17 | 91 | 4,954 | 0.0184 | 1.30\% | 1.43\% | 64.4 | 70.8 | 141\% | 128\% |
| 18 | 90 | 4,721 | 0.0191 | 1.20\% | 1.32\% | 56.7 | 62.3 | 159\% | 144\% |
| 19 | 69 | 4,155 | 0.0166 | 1.10\% | 1.21\% | 45.7 | 50.3 | 151\% | 137\% |
| 20 | 62 | 3,890 | 0.0159 | 1.00\% | 1.10\% | 38.9 | 42.8 | 159\% | 145\% |
| 21 | 52 | 3,649 | 0.0143 | 1.00\% | 1.10\% | 36.5 | 40.1 | 143\% | 130\% |
| 22 | 29 | 3,135 | 0.0093 | 1.00\% | 1.10\% | 31.4 | 34.5 | 93\% | 84\% |
| 23 | 56 | 2,811 | 0.0199 | 1.00\% | 1.10\% | 28.1 | 30.9 | 199\% | 181\% |
| 24 | 35 | 2,117 | 0.0165 | 1.00\% | 1.10\% | 21.2 | 23.3 | 165\% | 150\% |
| 25 | 22 | 1,745 | 0.0126 | 1.00\% | 1.10\% | 17.5 | 19.2 | 126\% | 115\% |
| 26 | 19 | 1,571 | 0.0121 | 1.00\% | 1.10\% | 15.7 | 17.3 | 121\% | 110\% |
| 27 | 18 | 1,475 | 0.0122 | 1.00\% | 1.10\% | 14.8 | 16.2 | 122\% | 111\% |
| 28 | 9 | 1,139 | 0.0079 | 1.00\% | 1.10\% | 11.4 | 12.5 | 79\% | 72\% |
| 29 | 9 | 734 | 0.0123 | 1.00\% | 1.10\% | 7.3 | 8.1 | 123\% | 111\% |
| 30 | 6 | 423 | 0.0142 | 1.00\% | 1.10\% | 4.2 | 4.7 | 142\% | 129\% |
| Total | 8,159 | 215,303 | 0.0379 |  |  | 5,806.2 | 6,705.7 | 141\% | 122\% |
| 31 or more | 27 | 2,487 | 0.0109 | 1.00\% | 1.10\% | 24.9 | 27.4 | 109\% | 99\% |
| Total | 8,186 | 217,790 | 0.0376 |  |  | 5,831.1 | 6,733.1 | 140\% | 122\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS

MEN AND WOMEN

| Service | TABLE 3C |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Withdrawals | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2)/(3) } \\ & \hline \end{aligned}$ | Assumed Probability |  | Expected Withdrawals |  | Actual/Expected |  |
|  |  |  |  | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | $\begin{aligned} & \text { Expected } \\ & (2) /(7) \\ & \hline \end{aligned}$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 0 | 1,147 | 15,829 | 0.0725 | 6.00\% | 6.80\% | 949.7 | 1,076.4 | 121\% | 107\% |
| 1 | 2,118 | 31,735 | 0.0667 | 5.00\% | 5.80\% | 1,586.8 | 1,840.6 | 133\% | 115\% |
| 2 | 1,986 | 33,270 | 0.0597 | 4.00\% | 4.80\% | 1,330.8 | 1,597.0 | 149\% | 124\% |
| 3 | 1,420 | 29,277 | 0.0485 | 3.00\% | 4.00\% | 878.3 | 1,171.1 | 162\% | 121\% |
| 4 | 1,023 | 22,299 | 0.0459 | 3.00\% | 3.60\% | 669.0 | 802.8 | 153\% | 127\% |
| 5 | 861 | 20,957 | 0.0411 | 3.00\% | 3.30\% | 628.7 | 691.6 | 137\% | 124\% |
| 6 | 731 | 19,197 | 0.0381 | 2.80\% | 3.10\% | 537.5 | 595.1 | 136\% | 123\% |
| 7 | 647 | 18,445 | 0.0351 | 2.60\% | 2.90\% | 479.6 | 534.9 | 135\% | 121\% |
| 8 | 499 | 18,064 | 0.0276 | 2.40\% | 2.64\% | 433.5 | 476.9 | 115\% | 105\% |
| 9 | 461 | 16,439 | 0.0280 | 2.20\% | 2.42\% | 361.7 | 397.8 | 127\% | 116\% |
| 10 | 361 | 14,381 | 0.0251 | 2.00\% | 2.20\% | 287.6 | 316.4 | 126\% | 114\% |
| 11 | 299 | 12,150 | 0.0246 | 1.90\% | 2.09\% | 230.9 | 253.9 | 130\% | 118\% |
| 12 | 250 | 11,549 | 0.0216 | 1.80\% | 1.98\% | 207.9 | 228.7 | 120\% | 109\% |
| 13 | 256 | 10,924 | 0.0234 | 1.70\% | 1.87\% | 185.7 | 204.3 | 138\% | 125\% |
| 14 | 236 | 10,929 | 0.0216 | 1.60\% | 1.76\% | 174.9 | 192.4 | 135\% | 123\% |
| 15 | 178 | 10,875 | 0.0164 | 1.50\% | 1.65\% | 163.1 | 179.4 | 109\% | 99\% |
| 16 | 165 | 10,085 | 0.0164 | 1.40\% | 1.54\% | 141.2 | 155.3 | 117\% | 106\% |
| 17 | 160 | 9,864 | 0.0162 | 1.30\% | 1.43\% | 128.2 | 141.1 | 125\% | 113\% |
| 18 | 161 | 9,424 | 0.0171 | 1.20\% | 1.32\% | 113.1 | 124.4 | 142\% | 129\% |
| 19 | 122 | 8,841 | 0.0138 | 1.10\% | 1.21\% | 97.3 | 107.0 | 125\% | 114\% |
| 20 | 120 | 8,500 | 0.0141 | 1.00\% | 1.10\% | 85.0 | 93.5 | 141\% | 128\% |
| 21 | 101 | 7,693 | 0.0131 | 1.00\% | 1.10\% | 76.9 | 84.6 | 131\% | 119\% |
| 22 | 71 | 6,675 | 0.0106 | 1.00\% | 1.10\% | 66.8 | 73.4 | 106\% | 97\% |
| 23 | 108 | 5,895 | 0.0183 | 1.00\% | 1.10\% | 59.0 | 64.8 | 183\% | 167\% |
| 24 | 61 | 4,113 | 0.0148 | 1.00\% | 1.10\% | 41.1 | 45.2 | 148\% | 135\% |
| 25 | 33 | 3,232 | 0.0102 | 1.00\% | 1.10\% | 32.3 | 35.6 | 102\% | 93\% |
| 26 | 33 | 2,838 | 0.0116 | 1.00\% | 1.10\% | 28.4 | 31.2 | 116\% | 106\% |
| 27 | 32 | 2,499 | 0.0128 | 1.00\% | 1.10\% | 25.0 | 27.5 | 128\% | 116\% |
| 28 | 23 | 2,025 | 0.0114 | 1.00\% | 1.10\% | 20.3 | 22.3 | 114\% | 103\% |
| 29 | 16 | 1,321 | 0.0121 | 1.00\% | 1.10\% | 13.2 | 14.5 | 121\% | 110\% |
| 30 | 12 | 1,353 | 0.0159 | 1.00\% | 1.10\% | 7.5 | 8.3 | 159\% | 145\% |
| Total | 13,691 | 380,078 | 0.0360 |  |  | 10,040.8 | 11,587.9 | 136\% | 118\% |
| 31 or more | 35 | 2,853 | 0.0123 | 1.00\% | 1.10\% | 28.5 | 31.4 | 123\% | 112\% |
| Total | 13,726 | 382,931 | 0.0358 |  |  | 10,069.3 | 11,619.3 | 136\% | 118\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS

MEN

| Service | Actual Withdrawals | TABLE 3A |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Withdrawals |  | Actual/Expected |  |
|  |  | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | $\begin{gathered} \text { Proposed } \\ (3) \times(6) \\ \hline \end{gathered}$ | $\begin{aligned} & \text { Expected } \\ & (2) /(7) \\ & \hline \end{aligned}$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 0 | 1,009 | 12,218 | 0.0826 | 6.00\% | 6.80\% | 733.1 | 830.8 | 138\% | 121\% |
| 1 | 1,694 | 26,515 | 0.0639 | 5.00\% | 5.80\% | 1,325.8 | 1,537.9 | 128\% | 110\% |
| 2 | 1,464 | 25,355 | 0.0577 | 4.00\% | 4.80\% | 1,014.2 | 1,217.0 | 144\% | 120\% |
| 3 | 1,169 | 23,145 | 0.0505 | 3.00\% | 4.00\% | 694.4 | 925.8 | 168\% | 126\% |
| 4 | 770 | 18,586 | 0.0414 | 3.00\% | 3.60\% | 557.6 | 669.1 | 138\% | 115\% |
| 5 | 689 | 17,261 | 0.0399 | 3.00\% | 3.30\% | 517.8 | 569.6 | 133\% | 121\% |
| 6 | 572 | 15,427 | 0.0371 | 2.80\% | 3.10\% | 432.0 | 478.2 | 132\% | 120\% |
| 7 | 465 | 14,364 | 0.0324 | 2.60\% | 2.90\% | 373.5 | 416.6 | 125\% | 112\% |
| 8 | 367 | 13,952 | 0.0263 | 2.40\% | 2.64\% | 334.8 | 368.3 | 110\% | 100\% |
| 9 | 308 | 13,195 | 0.0233 | 2.20\% | 2.42\% | 290.3 | 319.3 | 106\% | 96\% |
| 10 | 295 | 12,856 | 0.0229 | 2.00\% | 2.20\% | 257.1 | 282.8 | 115\% | 104\% |
| 11 | 270 | 12,116 | 0.0223 | 1.90\% | 2.09\% | 230.2 | 253.2 | 117\% | 107\% |
| 12 | 274 | 11,480 | 0.0239 | 1.80\% | 1.98\% | 206.6 | 227.3 | 133\% | 121\% |
| 13 | 251 | 11,606 | 0.0216 | 1.70\% | 1.87\% | 197.3 | 217.0 | 127\% | 116\% |
| 14 | 233 | 11,405 | 0.0204 | 1.60\% | 1.76\% | 182.5 | 200.7 | 128\% | 116\% |
| 15 | 196 | 11,333 | 0.0173 | 1.50\% | 1.65\% | 170.0 | 187.0 | 115\% | 105\% |
| 16 | 182 | 11,000 | 0.0165 | 1.40\% | 1.54\% | 154.0 | 169.4 | 118\% | 107\% |
| 17 | 170 | 10,609 | 0.0160 | 1.30\% | 1.43\% | 137.9 | 151.7 | 123\% | 112\% |
| 18 | 133 | 9,829 | 0.0135 | 1.20\% | 1.32\% | 117.9 | 129.7 | 113\% | 103\% |
| 19 | 109 | 9,298 | 0.0117 | 1.10\% | 1.21\% | 102.3 | 112.5 | 107\% | 97\% |
| 20 | 104 | 8,324 | 0.0125 | 1.00\% | 1.10\% | 83.2 | 91.6 | 125\% | 114\% |
| 21 | 83 | 7,241 | 0.0115 | 1.00\% | 1.10\% | 72.4 | 79.7 | 115\% | 104\% |
| 22 | 74 | 6,475 | 0.0114 | 1.00\% | 1.10\% | 64.8 | 71.2 | 114\% | 104\% |
| 23 | 77 | 5,731 | 0.0134 | 1.00\% | 1.10\% | 57.3 | 63.0 | 134\% | 122\% |
| 24 | 52 | 4,022 | 0.0129 | 1.00\% | 1.10\% | 40.2 | 44.2 | 129\% | 118\% |
| 25 | 25 | 3,044 | 0.0082 | 1.00\% | 1.10\% | 30.4 | 33.5 | 82\% | 75\% |
| 26 | 24 | 2,311 | 0.0104 | 1.00\% | 1.10\% | 23.1 | 25.4 | 104\% | 94\% |
| 27 | 24 | 1,721 | 0.0139 | 1.00\% | 1.10\% | 17.2 | 18.9 | 139\% | 127\% |
| 28 | 17 | 1,272 | 0.0134 | 1.00\% | 1.10\% | 12.7 | 14.0 | 134\% | 121\% |
| 29 | 11 | 985 | 0.0112 | 1.00\% | 1.10\% | 9.9 | 10.8 | 112\% | 102\% |
| 30 | 14 | 859 | 0.0163 | 1.00\% | 1.10\% | 8.6 | 9.4 | 163\% | 148\% |
| Subtotal | 11,125 | 333,535 | 0.0334 |  |  | 8,449.1 | 9,726.0 | 132\% | 114\% |
| 31 or more | 20 | 1,123 | 0.0178 | 1.00\% | 1.10\% | 11.2 | 12.4 | 178\% | 162\% |
| Total | 11,145 | 334,658 | 0.0333 |  |  | 8,460.3 | 9,738.3 | 132\% | 114\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL
WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS
WOMEN

| Service | TABLE 3B |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Withdrawals | Total Exposed | Actual Rate <br> (2) / (3) | Assumed Probability |  | Expected Withdrawals |  | Actual/Expected |  |
|  |  |  |  | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | $\begin{aligned} & \text { Proposed } \\ & (2) /(8) \\ & \hline \end{aligned}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 0 | 1,341 | 17,116 | 0.0783 | 6.00\% | 6.80\% | 1,027.0 | 1,163.9 | 131\% | 115\% |
| 1 | 2,575 | 38,001 | 0.0678 | 5.00\% | 5.80\% | 1,900.1 | 2,204.1 | 136\% | 117\% |
| 2 | 2,200 | 36,955 | 0.0595 | 4.00\% | 4.80\% | 1,478.2 | 1,773.8 | 149\% | 124\% |
| 3 | 1,654 | 34,315 | 0.0482 | 3.00\% | 4.00\% | 1,029.5 | 1,372.6 | 161\% | 121\% |
| 4 | 1,268 | 28,198 | 0.0450 | 3.00\% | 3.60\% | 845.9 | 1,015.1 | 150\% | 125\% |
| 5 | 1,065 | 25,669 | 0.0415 | 3.00\% | 3.30\% | 770.1 | 847.1 | 138\% | 126\% |
| 6 | 851 | 22,847 | 0.0372 | 2.80\% | 3.10\% | 639.7 | 708.3 | 133\% | 120\% |
| 7 | 710 | 20,380 | 0.0348 | 2.60\% | 2.90\% | 529.9 | 591.0 | 134\% | 120\% |
| 8 | 549 | 19,446 | 0.0282 | 2.40\% | 2.64\% | 466.7 | 513.4 | 118\% | 107\% |
| 9 | 534 | 17,898 | 0.0298 | 2.20\% | 2.42\% | 393.8 | 433.1 | 136\% | 123\% |
| 10 | 466 | 16,373 | 0.0285 | 2.00\% | 2.20\% | 327.5 | 360.2 | 142\% | 129\% |
| 11 | 407 | 15,151 | 0.0269 | 1.90\% | 2.09\% | 287.9 | 316.7 | 141\% | 129\% |
| 12 | 297 | 13,919 | 0.0213 | 1.80\% | 1.98\% | 250.5 | 275.6 | 119\% | 108\% |
| 13 | 296 | 13,064 | 0.0227 | 1.70\% | 1.87\% | 222.1 | 244.3 | 133\% | 121\% |
| 14 | 268 | 12,510 | 0.0214 | 1.60\% | 1.76\% | 200.2 | 220.2 | 134\% | 122\% |
| 15 | 206 | 11,828 | 0.0174 | 1.50\% | 1.65\% | 177.4 | 195.2 | 116\% | 106\% |
| 16 | 201 | 11,001 | 0.0183 | 1.40\% | 1.54\% | 154.0 | 169.4 | 131\% | 119\% |
| 17 | 182 | 10,292 | 0.0177 | 1.30\% | 1.43\% | 133.8 | 147.2 | 136\% | 124\% |
| 18 | 165 | 9,319 | 0.0177 | 1.20\% | 1.32\% | 111.8 | 123.0 | 148\% | 134\% |
| 19 | 132 | 8,244 | 0.0160 | 1.10\% | 1.21\% | 90.7 | 99.8 | 146\% | 132\% |
| 20 | 115 | 7,289 | 0.0158 | 1.00\% | 1.10\% | 72.9 | 80.2 | 158\% | 143\% |
| 21 | 87 | 6,585 | 0.0132 | 1.00\% | 1.10\% | 65.9 | 72.4 | 132\% | 120\% |
| 22 | 61 | 5,962 | 0.0102 | 1.00\% | 1.10\% | 59.6 | 65.6 | 102\% | 93\% |
| 23 | 92 | 5,616 | 0.0164 | 1.00\% | 1.10\% | 56.2 | 61.8 | 164\% | 149\% |
| 24 | 65 | 4,309 | 0.0151 | 1.00\% | 1.10\% | 43.1 | 47.4 | 151\% | 137\% |
| 25 | 36 | 3,340 | 0.0108 | 1.00\% | 1.10\% | 33.4 | 36.7 | 108\% | 98\% |
| 26 | 39 | 2,621 | 0.0149 | 1.00\% | 1.10\% | 26.2 | 28.8 | 149\% | 135\% |
| 27 | 23 | 2,024 | 0.0114 | 1.00\% | 1.10\% | 20.2 | 22.3 | 114\% | 103\% |
| 28 | 12 | 1,543 | 0.0078 | 1.00\% | 1.10\% | 15.4 | 17.0 | 78\% | 71\% |
| 29 | 12 | 1,219 | 0.0098 | 1.00\% | 1.10\% | 12.2 | 13.4 | 98\% | 89\% |
| 30 | 16 | 1,196 | 0.0134 | 1.00\% | 1.10\% | 12.0 | 13.2 | 134\% | 122\% |
| Total | 15,925 | 424,230 | 0.0375 |  |  | 11,453.6 | 13,232.6 | 139\% | 120\% |
| 31 or more | 27 | 2,487 | 0.0109 | 1.00\% | 1.10\% | 24.9 | 27.4 | 109\% | 99\% |
| Total | 15,952 | 426,717 | 0.0374 |  |  | 11,478.5 | 13,259.9 | 139\% | 120\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS

MEN AND WOMEN


## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL

 WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN| Plan <br> Year | TABLE 3D |  |  | 10-YEAR PERIOD ENDING 6/30/2013 Withdrawal Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending <br> June 30, | Life Years Exposed | Actual <br> Withdrawals | Expected Withdrawals | Actual / <br> Expected | Actual <br> (3) / (2) | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 95,892 | 2,964 | 2,698.0 | 110\% | 3.09\% | 2.81\% |
| 2005 | 95,161 | 3,158 | 2,634.5 | 120\% | 3.32\% | 2.77\% |
| 2006 | 94,578 | 3,295 | 2,610.5 | 126\% | 3.48\% | 2.76\% |
| 2007 | 94,693 | 3,974 | 2,619.6 | 152\% | 4.20\% | 2.77\% |
| 2008 | 95,062 | 3,715 | 2,688.7 | 138\% | 3.91\% | 2.83\% |
| 2009 | 95,769 | 3,075 | 2,714.5 | 113\% | 3.21\% | 2.83\% |
| 2010 | 95,404 | 3,241 | 2,713.0 | 119\% | 3.40\% | 2.84\% |
| 2011 | 94,816 | 3,675 | 2,653.1 | 139\% | 3.88\% | 2.80\% |
| 2012 | 93,229 | 737 | 2,583.5 | 29\% | 0.79\% | 2.77\% |
| 2013 | 97,670 | 2,116 | 2,885.7 | 73\% | 2.17\% | 2.95\% |
| Total | 952,274 | 29,950 | 26,801.0 | 112\% | 3.15\% | 2.81\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY TOTAL - MEN AND WOMEN

|  | TABLE 4A |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements <br> Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 1 | 3 | 0.3333 | 40.00\% | 35.00\% | 1.2 | 1.1 | 83\% | 95\% |
| 44 | 2 | 4 | 0.5000 | 40.00\% | 35.00\% | 1.6 | 1.4 | 125\% | 143\% |
| 45 | 2 | 5 | 0.4000 | 40.00\% | 35.00\% | 2.0 | 1.8 | 100\% | 114\% |
| 46 | 5 | 8 | 0.6250 | 40.00\% | 35.00\% | 3.2 | 2.8 | 156\% | 179\% |
| 47 | 6 | 10 | 0.6000 | 40.00\% | 35.00\% | 4.0 | 3.5 | 150\% | 171\% |
| 48 | 9 | 17 | 0.5294 | 40.00\% | 35.00\% | 6.8 | 6.0 | 132\% | 151\% |
| 49 | 11 | 17 | 0.6471 | 40.00\% | 35.00\% | 6.8 | 6.0 | 162\% | 185\% |
| 50 | 109 | 393 | 0.2774 | 39.29\% | 34.29\% | 154.4 | 134.8 | 71\% | 81\% |
| 51 | 57 | 111 | 0.5135 | 38.92\% | 33.92\% | 43.2 | 37.7 | 132\% | 151\% |
| 52 | 30 | 88 | 0.3409 | 38.64\% | 33.64\% | 34.0 | 29.6 | 88\% | 101\% |
| 53 | 27 | 86 | 0.3140 | 39.30\% | 34.30\% | 33.8 | 29.5 | 80\% | 92\% |
| 54 | 25 | 77 | 0.3247 | 38.70\% | 33.70\% | 29.8 | 26.0 | 84\% | 96\% |
| 55 | 193 | 742 | 0.2601 | 39.06\% | 34.06\% | 289.8 | 252.7 | 67\% | 76\% |
| 56 | 99 | 184 | 0.5380 | 38.80\% | 33.80\% | 71.4 | 62.2 | 139\% | 159\% |
| 57 | 175 | 4,465 | 0.0392 | 20.53\% | 15.53\% | 916.8 | 693.6 | 19\% | 25\% |
| 58 | 83 | 552 | 0.1504 | 23.37\% | 18.37\% | 129.0 | 101.4 | 64\% | 82\% |
| 59 | 42 | 469 | 0.0896 | 22.56\% | 17.56\% | 105.8 | 82.4 | 40\% | 51\% |
| 60 | 23 | 384 | 0.0599 | 21.72\% | 16.72\% | 83.4 | 64.2 | 28\% | 36\% |
| 61 | 15 | 342 | 0.0439 | 21.46\% | 16.46\% | 73.4 | 56.3 | 20\% | 27\% |
| 62 | 1,687 | 7,819 | 0.2158 | 30.86\% | 35.72\% | 2,412.9 | 2,792.7 | 70\% | 60\% |
| 63 | 639 | 898 | 0.7116 | 20.78\% | 15.78\% | 186.6 | 141.7 | 342\% | 451\% |
| 64 | 21 | 215 | 0.0977 | 20.19\% | 15.19\% | 43.4 | 32.7 | 48\% | 64\% |
| 65 | 17 | 172 | 0.0988 | 30.52\% | 15.35\% | 52.5 | 26.4 | 32\% | 64\% |
| 66 | 19 | 148 | 0.1284 | 20.54\% | 15.54\% | 30.4 | 23.0 | 63\% | 83\% |
| 67 | 17 | 114 | 0.1491 | 20.35\% | 15.35\% | 23.2 | 17.5 | 73\% | 97\% |
| 68 | 15 | 74 | 0.2027 | 20.00\% | 15.00\% | 14.8 | 11.1 | 101\% | 135\% |
| 69 | 10 | 58 | 0.1724 | 20.00\% | 15.00\% | 11.6 | 8.7 | 86\% | 115\% |
| 70 | 9 | 37 | 0.2432 | 100.00\% | 100.00\% | 37.0 | 37.0 | 24\% | 24\% |
| Subtotal | 3,348 | 17,492 |  |  |  | 4,802.8 | 4,683.3 | 70\% | 71\% |
| Other | 29 | 138 | 0.2101 | 100.00\% | 100.00\% | 138.0 | 138.0 | 21\% | 21\% |
| Total | 3,377 | 17,630 |  |  |  | 4,940.8 | 4,821.3 | 68\% | 70\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 4B |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013$\qquad$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | $\begin{gathered} \text { Proposed } \\ (3) \times(6) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 1 | 3 | 0.3333 | 40.00\% | 35.00\% | 1.2 | 1.1 | 83\% | 95\% |
| 44 | 2 | 4 | 0.5000 | 40.00\% | 35.00\% | 1.6 | 1.4 | 125\% | 143\% |
| 45 | 2 | 5 | 0.4000 | 40.00\% | 35.00\% | 2.0 | 1.8 | 100\% | 114\% |
| 46 | 5 | 8 | 0.6250 | 40.00\% | 35.00\% | 3.2 | 2.8 | 156\% | 179\% |
| 47 | 6 | 10 | 0.6000 | 40.00\% | 35.00\% | 4.0 | 3.5 | 150\% | 171\% |
| 48 | 9 | 17 | 0.5294 | 40.00\% | 35.00\% | 6.8 | 6.0 | 132\% | 151\% |
| 49 | 11 | 17 | 0.6471 | 40.00\% | 35.00\% | 6.8 | 6.0 | 162\% | 185\% |
| 50 | 103 | 379 | 0.2718 | 40.00\% | 35.00\% | 151.6 | 132.7 | 68\% | 78\% |
| 51 | 53 | 105 | 0.5048 | 40.00\% | 35.00\% | 42.0 | 36.8 | 126\% | 144\% |
| 52 | 25 | 82 | 0.3049 | 40.00\% | 35.00\% | 32.8 | 28.7 | 76\% | 87\% |
| 53 | 25 | 83 | 0.3012 | 40.00\% | 35.00\% | 33.2 | 29.1 | 75\% | 86\% |
| 54 | 21 | 72 | 0.2917 | 40.00\% | 35.00\% | 28.8 | 25.2 | 73\% | 83\% |
| 55 | 179 | 707 | 0.2532 | 40.00\% | 35.00\% | 282.8 | 247.5 | 63\% | 72\% |
| 56 | 88 | 173 | 0.5087 | 40.00\% | 35.00\% | 69.2 | 60.6 | 127\% | 145\% |
| 57 | 30 | 119 | 0.2521 | 40.00\% | 35.00\% | 47.6 | 41.7 | 63\% | 72\% |
| 58 | 38 | 93 | 0.4086 | 40.00\% | 35.00\% | 37.2 | 32.6 | 102\% | 117\% |
| 59 | 27 | 60 | 0.4500 | 40.00\% | 35.00\% | 24.0 | 21.0 | 113\% | 129\% |
| 60 | 8 | 33 | 0.2424 | 40.00\% | 35.00\% | 13.2 | 11.6 | 61\% | 69\% |
| 61 | 5 | 25 | 0.2000 | 40.00\% | 35.00\% | 10.0 | 8.8 | 50\% | 57\% |
| 62 | 60 | 224 | 0.2679 | 60.00\% | 60.00\% | 134.4 | 134.4 | 45\% | 45\% |
| 63 | 28 | 35 | 0.8000 | 40.00\% | 35.00\% | 14.0 | 12.3 | 200\% | 229\% |
| 64 | 0 | 2 | 0.0000 | 40.00\% | 35.00\% | 0.8 | 0.7 | 0\% | 0\% |
| 65 | 0 | 3 | 0.0000 | 60.00\% | 35.00\% | 1.8 | 1.1 | 0\% | 0\% |
| 66 | 2 | 4 | 0.5000 | 40.00\% | 35.00\% | 1.6 | 1.4 | 125\% | 143\% |
| 67 | 0 | 2 | 0.0000 | 40.00\% | 35.00\% | 0.8 | 0.7 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 728 | 2,265 |  |  |  | 951.4 | 848.8 | 77\% | 86\% |
| Other | 0 | 1 | 0.0000 | 100.00\% | 100.00\% | 1.0 | 1.0 | 0\% | 0\% |
| Total | 728 | 2,266 |  |  |  | 952.4 | 849.8 | 76\% | 86\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY

MEN AND WOMEN - MANDATED RETIREMENT BENEFIT


NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY TOTAL - MEN AND WOMEN

|  | TABLE 4A |  |  | Assumed | bability | 10-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 1 | 1 | 1.0000 | 40.00\% | 35.00\% | 0.4 | 0.4 | 250\% | 286\% |
| 43 | 3 | 6 | 0.5000 | 36.67\% | 31.67\% | 2.2 | 1.9 | 136\% | 158\% |
| 44 | 6 | 11 | 0.5455 | 36.36\% | 31.36\% | 4.0 | 3.5 | 150\% | 174\% |
| 45 | 3 | 9 | 0.3333 | 37.78\% | 32.78\% | 3.4 | 3.0 | 88\% | 102\% |
| 46 | 15 | 22 | 0.6818 | 34.55\% | 29.55\% | 7.6 | 6.5 | 197\% | 231\% |
| 47 | 16 | 28 | 0.5714 | 37.86\% | 32.86\% | 10.6 | 9.2 | 151\% | 174\% |
| 48 | 26 | 42 | 0.6190 | 38.57\% | 33.57\% | 16.2 | 14.1 | 160\% | 184\% |
| 49 | 38 | 56 | 0.6786 | 38.93\% | 33.93\% | 21.8 | 19.0 | 174\% | 200\% |
| 50 | 247 | 854 | 0.2892 | 38.85\% | 33.85\% | 331.8 | 289.1 | 74\% | 85\% |
| 51 | 109 | 270 | 0.4037 | 38.07\% | 33.07\% | 102.8 | 89.3 | 106\% | 122\% |
| 52 | 82 | 222 | 0.3694 | 38.02\% | 33.02\% | 84.4 | 73.3 | 97\% | 112\% |
| 53 | 65 | 199 | 0.3266 | 37.99\% | 32.99\% | 75.6 | 65.7 | 86\% | 99\% |
| 54 | 153 | 271 | 0.5646 | 32.99\% | 27.99\% | 89.4 | 75.9 | 171\% | 202\% |
| 55 | 1,070 | 3,526 | 0.3035 | 30.12\% | 25.12\% | 1,062.2 | 885.9 | 101\% | 121\% |
| 56 | 441 | 645 | 0.6837 | 31.07\% | 26.07\% | 200.4 | 168.2 | 220\% | 262\% |
| 57 | 587 | 7,691 | 0.0763 | 20.78\% | 15.78\% | 1,598.0 | 1,213.5 | 37\% | 48\% |
| 58 | 392 | 1,383 | 0.2834 | 23.09\% | 18.09\% | 319.4 | 250.3 | 123\% | 157\% |
| 59 | 362 | 1,215 | 0.2979 | 22.26\% | 17.26\% | 270.4 | 209.7 | 134\% | 173\% |
| 60 | 368 | 1,105 | 0.3330 | 21.43\% | 16.43\% | 236.8 | 181.6 | 155\% | 203\% |
| 61 | 484 | 1,147 | 0.4220 | 20.92\% | 15.92\% | 240.0 | 182.7 | 202\% | 265\% |
| 62 | 3,520 | 17,703 | 0.1988 | 30.67\% | 35.56\% | 5,430.0 | 6,295.3 | 65\% | 56\% |
| 63 | 694 | 1,200 | 0.5783 | 20.68\% | 15.68\% | 248.2 | 188.2 | 280\% | 369\% |
| 64 | 62 | 510 | 0.1216 | 20.31\% | 15.31\% | 103.6 | 78.1 | 60\% | 79\% |
| 65 | 54 | 390 | 0.1385 | 30.62\% | 15.41\% | 119.4 | 60.1 | 45\% | 90\% |
| 66 | 70 | 329 | 0.2128 | 20.73\% | 15.73\% | 68.2 | 51.8 | 103\% | 135\% |
| 67 | 56 | 250 | 0.2240 | 20.32\% | 15.32\% | 50.8 | 38.3 | 110\% | 146\% |
| 68 | 39 | 160 | 0.2438 | 20.13\% | 15.13\% | 32.2 | 24.2 | 121\% | 161\% |
| 69 | 25 | 117 | 0.2137 | 20.17\% | 15.17\% | 23.6 | 17.8 | 106\% | 141\% |
| 70 | 26 | 99 | 0.2626 | 100.00\% | 100.00\% | 99.0 | 99.0 | 26\% | 26\% |
| Subtotal | 9,014 | 39,461 |  |  |  | 10,852.4 | 10,595.0 | 83\% | 85\% |
| Other | 65 | 286 | 0.2273 | 100.00\% | 100.00\% | 286.0 | 286.0 | 23\% | 23\% |
| Total | 9,079 | 39,747 |  |  |  | 11,138.4 | 10,881.0 | 82\% | 83\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 4B |  |  | Assumed Probability |  | Expected Retirements |  | Actual/Expected |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } x(6)$ | Expected $(2) /(7)$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 1 | 1 | 1.0000 | 40.00\% | 35.00\% | 0.4 | 0.4 | 250\% | 286\% |
| 43 | 3 | 5 | 0.6000 | 40.00\% | 35.00\% | 2.0 | 1.8 | 150\% | 171\% |
| 44 | 4 | 9 | 0.4444 | 40.00\% | 35.00\% | 3.6 | 3.2 | 111\% | 127\% |
| 45 | 3 | 8 | 0.3750 | 40.00\% | 35.00\% | 3.2 | 2.8 | 94\% | 107\% |
| 46 | 11 | 16 | 0.6875 | 40.00\% | 35.00\% | 6.4 | 5.6 | 172\% | 196\% |
| 47 | 13 | 25 | 0.5200 | 40.00\% | 35.00\% | 10.0 | 8.8 | 130\% | 149\% |
| 48 | 24 | 39 | 0.6154 | 40.00\% | 35.00\% | 15.6 | 13.7 | 154\% | 176\% |
| 49 | 35 | 53 | 0.6604 | 40.00\% | 35.00\% | 21.2 | 18.6 | 165\% | 189\% |
| 50 | 210 | 805 | 0.2609 | 40.00\% | 35.00\% | 322.0 | 281.8 | 65\% | 75\% |
| 51 | 87 | 244 | 0.3566 | 40.00\% | 35.00\% | 97.6 | 85.4 | 89\% | 102\% |
| 52 | 63 | 200 | 0.3150 | 40.00\% | 35.00\% | 80.0 | 70.0 | 79\% | 90\% |
| 53 | 48 | 179 | 0.2682 | 40.00\% | 35.00\% | 71.6 | 62.7 | 67\% | 77\% |
| 54 | 62 | 176 | 0.3523 | 40.00\% | 35.00\% | 70.4 | 61.6 | 88\% | 101\% |
| 55 | 411 | 1,785 | 0.2303 | 40.00\% | 35.00\% | 714.0 | 624.8 | 58\% | 66\% |
| 56 | 153 | 357 | 0.4286 | 40.00\% | 35.00\% | 142.8 | 125.0 | 107\% | 122\% |
| 57 | 79 | 299 | 0.2642 | 40.00\% | 35.00\% | 119.6 | 104.7 | 66\% | 75\% |
| 58 | 71 | 214 | 0.3318 | 40.00\% | 35.00\% | 85.6 | 74.9 | 83\% | 95\% |
| 59 | 56 | 137 | 0.4088 | 40.00\% | 35.00\% | 54.8 | 48.0 | 102\% | 117\% |
| 60 | 38 | 79 | 0.4810 | 40.00\% | 35.00\% | 31.6 | 27.7 | 120\% | 137\% |
| 61 | 14 | 53 | 0.2642 | 40.00\% | 35.00\% | 21.2 | 18.6 | 66\% | 75\% |
| 62 | 81 | 397 | 0.2040 | 60.00\% | 60.00\% | 238.2 | 238.2 | 34\% | 34\% |
| 63 | 30 | 41 | 0.7317 | 40.00\% | 35.00\% | 16.4 | 14.4 | 183\% | 209\% |
| 64 | 0 | 8 | 0.0000 | 40.00\% | 35.00\% | 3.2 | 2.8 | 0\% | 0\% |
| 65 | 2 | 8 | 0.2500 | 60.00\% | 35.00\% | 4.8 | 2.8 | 42\% | 71\% |
| 66 | 5 | 12 | 0.4167 | 40.00\% | 35.00\% | 4.8 | 4.2 | 104\% | 119\% |
| 67 | 0 | 4 | 0.0000 | 40.00\% | 35.00\% | 1.6 | 1.4 | 0\% | 0\% |
| 68 | 0 | 1 | 0.0000 | 40.00\% | 35.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 69 | 0 | 1 | 0.0000 | 40.00\% | 35.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 70 | 1 | 5 | 0.2000 | 100.00\% | 100.00\% | 5.0 | 5.0 | 20\% | 20\% |
| Subtotal | 1,505 | 5,161 |  |  |  | 2,148.4 | 1,908.9 | 70\% | 79\% |
| Other | 0 | 7 | 0.0000 | 100.00\% | 100.00\% | 7.0 | 7.0 | 0\% | 0\% |
| Total | 1,505 | 5,168 |  |  |  | 2,155.4 | 1,915.9 | 70\% | 79\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY

MEN AND WOMEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 4C |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 20.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 20.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 20.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 1 | 0.0000 | 20.00\% | 15.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 44 | 2 | 2 | 1.0000 | 20.00\% | 15.00\% | 0.4 | 0.3 | 500\% | 667\% |
| 45 | 0 | 1 | 0.0000 | 20.00\% | 15.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 46 | 4 | 6 | 0.6667 | 20.00\% | 15.00\% | 1.2 | 0.9 | 333\% | 444\% |
| 47 | 3 | 3 | 1.0000 | 20.00\% | 15.00\% | 0.6 | 0.5 | 500\% | 667\% |
| 48 | 2 | 3 | 0.6667 | 20.00\% | 15.00\% | 0.6 | 0.5 | 333\% | 444\% |
| 49 | 3 | 3 | 1.0000 | 20.00\% | 15.00\% | 0.6 | 0.5 | 500\% | 667\% |
| 50 | 37 | 49 | 0.7551 | 20.00\% | 15.00\% | 9.8 | 7.4 | 378\% | 503\% |
| 51 | 22 | 26 | 0.8462 | 20.00\% | 15.00\% | 5.2 | 3.9 | 423\% | 564\% |
| 52 | 19 | 22 | 0.8636 | 20.00\% | 15.00\% | 4.4 | 3.3 | 432\% | 576\% |
| 53 | 17 | 20 | 0.8500 | 20.00\% | 15.00\% | 4.0 | 3.0 | 425\% | 567\% |
| 54 | 91 | 95 | 0.9579 | 20.00\% | 15.00\% | 19.0 | 14.3 | 479\% | 639\% |
| 55 | 659 | 1,741 | 0.3785 | 20.00\% | 15.00\% | 348.2 | 261.2 | 189\% | 252\% |
| 56 | 288 | 288 | 1.0000 | 20.00\% | 15.00\% | 57.6 | 43.2 | 500\% | 667\% |
| 57 | 508 | 7,392 | 0.0687 | 20.00\% | 15.00\% | 1,478.4 | 1,108.8 | 34\% | 46\% |
| 58 | 321 | 1,169 | 0.2746 | 20.00\% | 15.00\% | 233.8 | 175.4 | 137\% | 183\% |
| 59 | 306 | 1,078 | 0.2839 | 20.00\% | 15.00\% | 215.6 | 161.7 | 142\% | 189\% |
| 60 | 330 | 1,026 | 0.3216 | 20.00\% | 15.00\% | 205.2 | 153.9 | 161\% | 214\% |
| 61 | 470 | 1,094 | 0.4296 | 20.00\% | 15.00\% | 218.8 | 164.1 | 215\% | 286\% |
| 62 | 3,439 | 17,306 | 0.1987 | 30.00\% | 35.00\% | 5,191.8 | 6,057.1 | 66\% | 57\% |
| 63 | 664 | 1,159 | 0.5729 | 20.00\% | 15.00\% | 231.8 | 173.9 | 286\% | 382\% |
| 64 | 62 | 502 | 0.1235 | 20.00\% | 15.00\% | 100.4 | 75.3 | 62\% | 82\% |
| 65 | 52 | 382 | 0.1361 | 30.00\% | 15.00\% | 114.6 | 57.3 | 45\% | 91\% |
| 66 | 65 | 317 | 0.2050 | 20.00\% | 15.00\% | 63.4 | 47.6 | 103\% | 137\% |
| 67 | 56 | 246 | 0.2276 | 20.00\% | 15.00\% | 49.2 | 36.9 | 114\% | 152\% |
| 68 | 39 | 159 | 0.2453 | 20.00\% | 15.00\% | 31.8 | 23.9 | 123\% | 164\% |
| 69 | 25 | 116 | 0.2155 | 20.00\% | 15.00\% | 23.2 | 17.4 | 108\% | 144\% |
| 70 | 25 | 94 | 0.2660 | 100.00\% | 100.00\% | 94.0 | 94.0 | 27\% | 27\% |
| Subtotal | 7,509 | 34,300 |  |  |  | 8,704.0 | 8,686.1 | 86\% | 86\% |
| Other | 65 | 279 | 0.2330 | 100.00\% | 100.00\% | 279.0 | 279.0 | 23\% | 23\% |
| Total | 7,574 | 34,579 |  |  |  | 8,983.0 | 8,965.1 | 84\% | 84\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY TOTAL - MEN AND WOMEN

|  | TABLE 5A |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | Proposed $\text { (3) } \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 2 | 0.0000 | 20.00\% | 20.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 46 | 0 | 3 | 0.0000 | 20.00\% | 20.00\% | 0.6 | 0.6 | 0\% | 0\% |
| 47 | 0 | 2 | 0.0000 | 20.00\% | 20.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 48 | 0 | 4 | 0.0000 | 20.00\% | 20.00\% | 0.8 | 0.8 | 0\% | 0\% |
| 49 | 6 | 15 | 0.4000 | 20.00\% | 20.00\% | 3.0 | 3.0 | 200\% | 200\% |
| 50 | 3 | 7 | 0.4286 | 19.29\% | 19.29\% | 1.4 | 1.4 | 222\% | 222\% |
| 51 | 25 | 242 | 0.1033 | 19.92\% | 19.92\% | 48.2 | 48.2 | 52\% | 52\% |
| 52 | 13 | 71 | 0.1831 | 19.79\% | 19.79\% | 14.1 | 14.1 | 93\% | 93\% |
| 53 | 7 | 59 | 0.1186 | 19.83\% | 19.83\% | 11.7 | 11.7 | 60\% | 60\% |
| 54 | 5 | 51 | 0.0980 | 19.90\% | 19.90\% | 10.2 | 10.2 | 49\% | 49\% |
| 55 | 12 | 56 | 0.2143 | 19.64\% | 19.64\% | 11.0 | 11.0 | 109\% | 109\% |
| 56 | 55 | 559 | 0.0984 | 19.49\% | 19.49\% | 109.0 | 109.0 | 50\% | 50\% |
| 57 | 49 | 122 | 0.4016 | 19.71\% | 19.71\% | 24.1 | 24.1 | 204\% | 204\% |
| 58 | 125 | 3,694 | 0.0338 | 15.14\% | 15.14\% | 559.4 | 559.4 | 22\% | 22\% |
| 59 | 42 | 453 | 0.0927 | 15.56\% | 15.56\% | 70.5 | 70.5 | 60\% | 60\% |
| 60 | 17 | 408 | 0.0417 | 15.50\% | 15.50\% | 63.3 | 63.3 | 27\% | 27\% |
| 61 | 18 | 358 | 0.0503 | 15.43\% | 15.43\% | 55.3 | 55.3 | 33\% | 33\% |
| 62 | 13 | 303 | 0.0429 | 25.00\% | 25.00\% | 75.8 | 75.8 | 17\% | 17\% |
| 63 | 646 | 5,664 | 0.1141 | 15.13\% | 15.13\% | 857.0 | 857.0 | 75\% | 75\% |
| 64 | 391 | 621 | 0.6296 | 15.20\% | 15.20\% | 94.4 | 94.4 | 414\% | 414\% |
| 65 | 30 | 203 | 0.1478 | 25.00\% | 25.00\% | 50.8 | 50.8 | 59\% | 59\% |
| 66 | 22 | 144 | 0.1528 | 15.00\% | 15.00\% | 21.6 | 21.6 | 102\% | 102\% |
| 67 | 20 | 116 | 0.1724 | 15.09\% | 15.09\% | 17.5 | 17.5 | 114\% | 114\% |
| 68 | 13 | 85 | 0.1529 | 15.18\% | 15.18\% | 12.9 | 12.9 | 101\% | 101\% |
| 69 | 11 | 55 | 0.2000 | 15.18\% | 15.18\% | 8.4 | 8.4 | 132\% | 132\% |
| 70 | 7 | 39 | 0.1795 | 100.00\% | 100.00\% | 39.0 | 39.0 | 18\% | 18\% |
| Subtotal | 1,530 | 13,336 |  |  |  | 2,160.3 | 2,160.3 | 71\% | 71\% |
| Other | 19 | 123 | 0.1545 | 100.00\% | 100.00\% | 123.0 | 123.0 | 15\% | 15\% |
| Total | 1,549 | 13,459 |  |  |  | 2,283.3 | 2,283.3 | 68\% | 68\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 5B |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 2 | 0.0000 | 20.00\% | 20.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 46 | 0 | 3 | 0.0000 | 20.00\% | 20.00\% | 0.6 | 0.6 | 0\% | 0\% |
| 47 | 0 | 2 | 0.0000 | 20.00\% | 20.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 48 | 0 | 4 | 0.0000 | 20.00\% | 20.00\% | 0.8 | 0.8 | 0\% | 0\% |
| 49 | 6 | 15 | 0.4000 | 20.00\% | 20.00\% | 3.0 | 3.0 | 200\% | 200\% |
| 50 | 2 | 6 | 0.3333 | 20.00\% | 20.00\% | 1.2 | 1.2 | 167\% | 167\% |
| 51 | 25 | 238 | 0.1050 | 20.00\% | 20.00\% | 47.6 | 47.6 | 53\% | 53\% |
| 52 | 13 | 68 | 0.1912 | 20.00\% | 20.00\% | 13.6 | 13.6 | 96\% | 96\% |
| 53 | 7 | 57 | 0.1228 | 20.00\% | 20.00\% | 11.4 | 11.4 | 61\% | 61\% |
| 54 | 5 | 50 | 0.1000 | 20.00\% | 20.00\% | 10.0 | 10.0 | 50\% | 50\% |
| 55 | 12 | 52 | 0.2308 | 20.00\% | 20.00\% | 10.4 | 10.4 | 115\% | 115\% |
| 56 | 47 | 502 | 0.0936 | 20.00\% | 20.00\% | 100.4 | 100.4 | 47\% | 47\% |
| 57 | 42 | 115 | 0.3652 | 20.00\% | 20.00\% | 23.0 | 23.0 | 183\% | 183\% |
| 58 | 21 | 106 | 0.1981 | 20.00\% | 20.00\% | 21.2 | 21.2 | 99\% | 99\% |
| 59 | 9 | 51 | 0.1765 | 20.00\% | 20.00\% | 10.2 | 10.2 | 88\% | 88\% |
| 60 | 5 | 41 | 0.1220 | 20.00\% | 20.00\% | 8.2 | 8.2 | 61\% | 61\% |
| 61 | 4 | 31 | 0.1290 | 20.00\% | 20.00\% | 6.2 | 6.2 | 65\% | 65\% |
| 62 | 3 | 17 | 0.1765 | 25.00\% | 25.00\% | 4.3 | 4.3 | 71\% | 71\% |
| 63 | 22 | 147 | 0.1497 | 20.00\% | 20.00\% | 29.4 | 29.4 | 75\% | 75\% |
| 64 | 20 | 25 | 0.8000 | 20.00\% | 20.00\% | 5.0 | 5.0 | 400\% | 400\% |
| 65 | 3 | 5 | 0.6000 | 25.00\% | 25.00\% | 1.3 | 1.3 | 240\% | 240\% |
| 66 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 2 | 0.0000 | 20.00\% | 20.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 68 | 1 | 3 | 0.3333 | 20.00\% | 20.00\% | 0.6 | 0.6 | 167\% | 167\% |
| 69 | 2 | 2 | 1.0000 | 20.00\% | 20.00\% | 0.4 | 0.4 | 500\% | 500\% |
| 70 | 1 | 1 | 1.0000 | 100.00\% | 100.00\% | 1.0 | 1.0 | 100\% | 100\% |
| Subtotal | 250 | 1,545 |  |  |  | 310.9 | 310.9 | 80\% | 80\% |
| Other | 1 | 1 | 1.0000 | 100.00\% | 100.00\% | 1.0 | 1.0 | 100\% | 100\% |
| Total | 251 | 1,546 |  |  |  | 311.9 | 311.9 | 80\% | 80\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 5C |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements <br> Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2)/(3) } \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 1 | 1 | 1.0000 | 15.00\% | 15.00\% | 0.2 | 0.2 | 667\% | 667\% |
| 51 | 0 | 4 | 0.0000 | 15.00\% | 15.00\% | 0.6 | 0.6 | 0\% | 0\% |
| 52 | 0 | 3 | 0.0000 | 15.00\% | 15.00\% | 0.5 | 0.5 | 0\% | 0\% |
| 53 | 0 | 2 | 0.0000 | 15.00\% | 15.00\% | 0.3 | 0.3 | 0\% | 0\% |
| 54 | 0 | 1 | 0.0000 | 15.00\% | 15.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 55 | 0 | 4 | 0.0000 | 15.00\% | 15.00\% | 0.6 | 0.6 | 0\% | 0\% |
| 56 | 8 | 57 | 0.1404 | 15.00\% | 15.00\% | 8.6 | 8.6 | 94\% | 94\% |
| 57 | 7 | 7 | 1.0000 | 15.00\% | 15.00\% | 1.1 | 1.1 | 667\% | 667\% |
| 58 | 104 | 3,588 | 0.0290 | 15.00\% | 15.00\% | 538.2 | 538.2 | 19\% | 19\% |
| 59 | 33 | 402 | 0.0821 | 15.00\% | 15.00\% | 60.3 | 60.3 | 55\% | 55\% |
| 60 | 12 | 367 | 0.0327 | 15.00\% | 15.00\% | 55.1 | 55.1 | 22\% | 22\% |
| 61 | 14 | 327 | 0.0428 | 15.00\% | 15.00\% | 49.1 | 49.1 | 29\% | 29\% |
| 62 | 10 | 286 | 0.0350 | 25.00\% | 25.00\% | 71.5 | 71.5 | 14\% | 14\% |
| 63 | 624 | 5,517 | 0.1131 | 15.00\% | 15.00\% | 827.6 | 827.6 | 75\% | 75\% |
| 64 | 371 | 596 | 0.6225 | 15.00\% | 15.00\% | 89.4 | 89.4 | 415\% | 415\% |
| 65 | 27 | 198 | 0.1364 | 25.00\% | 25.00\% | 49.5 | 49.5 | 55\% | 55\% |
| 66 | 22 | 144 | 0.1528 | 15.00\% | 15.00\% | 21.6 | 21.6 | 102\% | 102\% |
| 67 | 20 | 114 | 0.1754 | 15.00\% | 15.00\% | 17.1 | 17.1 | 117\% | 117\% |
| 68 | 12 | 82 | 0.1463 | 15.00\% | 15.00\% | 12.3 | 12.3 | 98\% | 98\% |
| 69 | 9 | 53 | 0.1698 | 15.00\% | 15.00\% | 8.0 | 8.0 | 113\% | 113\% |
| 70 | 6 | 38 | 0.1579 | 100.00\% | 100.00\% | 38.0 | 38.0 | 16\% | 16\% |
| Subtotal | 1,280 | 11,791 |  |  |  | 1,849.4 | 1,849.4 | 69\% | 69\% |
| Other | 18 | 122 | 0.1475 | 100.00\% | 100.00\% | 122.0 | 122.0 | 15\% | 15\% |
| Total | 1,298 | 11,913 |  |  |  | 1,971.4 | 1,971.4 | 66\% | 66\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY TOTAL - MEN AND WOMEN

|  | TABLE 5A |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } /(\mathbf{3}) \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 1 | 0.0000 | 15.00\% | 15.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 45 | 0 | 4 | 0.0000 | 18.75\% | 18.75\% | 0.8 | 0.8 | 0\% | 0\% |
| 46 | 1 | 4 | 0.2500 | 20.00\% | 20.00\% | 0.8 | 0.8 | 125\% | 125\% |
| 47 | 2 | 7 | 0.2857 | 19.29\% | 19.29\% | 1.4 | 1.4 | 148\% | 148\% |
| 48 | 3 | 14 | 0.2143 | 18.93\% | 18.93\% | 2.7 | 2.7 | 113\% | 113\% |
| 49 | 8 | 25 | 0.3200 | 19.60\% | 19.60\% | 4.9 | 4.9 | 163\% | 163\% |
| 50 | 4 | 20 | 0.2000 | 19.25\% | 19.25\% | 3.9 | 3.9 | 104\% | 104\% |
| 51 | 74 | 514 | 0.1440 | 19.82\% | 19.82\% | 101.9 | 101.9 | 73\% | 73\% |
| 52 | 25 | 163 | 0.1534 | 19.82\% | 19.82\% | 32.3 | 32.3 | 77\% | 77\% |
| 53 | 19 | 132 | 0.1439 | 19.85\% | 19.85\% | 26.2 | 26.2 | 73\% | 73\% |
| 54 | 21 | 122 | 0.1721 | 19.63\% | 19.63\% | 24.0 | 24.0 | 88\% | 88\% |
| 55 | 22 | 111 | 0.1982 | 19.68\% | 19.68\% | 21.9 | 21.9 | 101\% | 101\% |
| 56 | 441 | 2,640 | 0.1670 | 17.30\% | 17.30\% | 456.7 | 456.7 | 97\% | 97\% |
| 57 | 64 | 227 | 0.2819 | 19.67\% | 19.67\% | 44.7 | 44.7 | 143\% | 143\% |
| 58 | 227 | 5,890 | 0.0385 | 15.17\% | 15.17\% | 893.6 | 893.6 | 25\% | 25\% |
| 59 | 75 | 959 | 0.0782 | 15.68\% | 15.68\% | 150.4 | 150.4 | 50\% | 50\% |
| 60 | 35 | 791 | 0.0442 | 15.47\% | 15.47\% | 122.4 | 122.4 | 29\% | 29\% |
| 61 | 37 | 698 | 0.0530 | 15.27\% | 15.27\% | 106.6 | 106.6 | 35\% | 35\% |
| 62 | 42 | 614 | 0.0684 | 25.00\% | 25.00\% | 153.5 | 153.5 | 27\% | 27\% |
| 63 | 1,839 | 12,978 | 0.1417 | 15.10\% | 15.10\% | 1,960.0 | 1,960.0 | 94\% | 94\% |
| 64 | 413 | 857 | 0.4819 | 15.18\% | 15.18\% | 130.1 | 130.1 | 318\% | 318\% |
| 65 | 60 | 450 | 0.1333 | 25.00\% | 25.00\% | 112.5 | 112.5 | 53\% | 53\% |
| 66 | 56 | 323 | 0.1734 | 15.05\% | 15.05\% | 48.6 | 48.6 | 115\% | 115\% |
| 67 | 34 | 229 | 0.1485 | 15.13\% | 15.13\% | 34.7 | 34.7 | 98\% | 98\% |
| 68 | 27 | 172 | 0.1570 | 15.12\% | 15.12\% | 26.0 | 26.0 | 104\% | 104\% |
| 69 | 19 | 113 | 0.1681 | 15.09\% | 15.09\% | 17.1 | 17.1 | 111\% | 111\% |
| 70 | 15 | 78 | 0.1923 | 100.00\% | 100.00\% | 78.0 | 78.0 | 19\% | 19\% |
| Subtotal | 3,563 | 28,136 |  |  |  | 4,555.3 | 4,555.3 | 78\% | 78\% |
| Other | 36 | 260 | 0.1385 | 100.00\% | 100.00\% | 260.0 | 260.0 | 14\% | 14\% |
| Total | 3,599 | 28,396 |  |  |  | 4,815.3 | 4,815.3 | 75\% | 75\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 5B |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) / (3) } \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $\text { (2) } /(7)$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 3 | 0.0000 | 20.00\% | 20.00\% | 0.6 | 0.6 | 0\% | 0\% |
| 46 | 1 | 4 | 0.2500 | 20.00\% | 20.00\% | 0.8 | 0.8 | 125\% | 125\% |
| 47 | 1 | 6 | 0.1667 | 20.00\% | 20.00\% | 1.2 | 1.2 | 83\% | 83\% |
| 48 | 3 | 11 | 0.2727 | 20.00\% | 20.00\% | 2.2 | 2.2 | 136\% | 136\% |
| 49 | 8 | 23 | 0.3478 | 20.00\% | 20.00\% | 4.6 | 4.6 | 174\% | 174\% |
| 50 | 3 | 17 | 0.1765 | 20.00\% | 20.00\% | 3.4 | 3.4 | 88\% | 88\% |
| 51 | 63 | 496 | 0.1270 | 20.00\% | 20.00\% | 99.2 | 99.2 | 64\% | 64\% |
| 52 | 22 | 157 | 0.1401 | 20.00\% | 20.00\% | 31.4 | 31.4 | 70\% | 70\% |
| 53 | 18 | 128 | 0.1406 | 20.00\% | 20.00\% | 25.6 | 25.6 | 70\% | 70\% |
| 54 | 14 | 113 | 0.1239 | 20.00\% | 20.00\% | 22.6 | 22.6 | 62\% | 62\% |
| 55 | 19 | 104 | 0.1827 | 20.00\% | 20.00\% | 20.8 | 20.8 | 91\% | 91\% |
| 56 | 141 | 1,214 | 0.1161 | 20.00\% | 20.00\% | 242.8 | 242.8 | 58\% | 58\% |
| 57 | 50 | 212 | 0.2358 | 20.00\% | 20.00\% | 42.4 | 42.4 | 118\% | 118\% |
| 58 | 38 | 202 | 0.1881 | 20.00\% | 20.00\% | 40.4 | 40.4 | 94\% | 94\% |
| 59 | 25 | 130 | 0.1923 | 20.00\% | 20.00\% | 26.0 | 26.0 | 96\% | 96\% |
| 60 | 10 | 75 | 0.1333 | 20.00\% | 20.00\% | 15.0 | 15.0 | 67\% | 67\% |
| 61 | 6 | 38 | 0.1579 | 20.00\% | 20.00\% | 7.6 | 7.6 | 79\% | 79\% |
| 62 | 6 | 32 | 0.1875 | 25.00\% | 25.00\% | 8.0 | 8.0 | 75\% | 75\% |
| 63 | 42 | 265 | 0.1585 | 20.00\% | 20.00\% | 53.0 | 53.0 | 79\% | 79\% |
| 64 | 21 | 30 | 0.7000 | 20.00\% | 20.00\% | 6.0 | 6.0 | 350\% | 350\% |
| 65 | 3 | 9 | 0.3333 | 25.00\% | 25.00\% | 2.3 | 2.3 | 133\% | 133\% |
| 66 | 0 | 3 | 0.0000 | 20.00\% | 20.00\% | 0.6 | 0.6 | 0\% | 0\% |
| 67 | 0 | 6 | 0.0000 | 20.00\% | 20.00\% | 1.2 | 1.2 | 0\% | 0\% |
| 68 | 1 | 4 | 0.2500 | 20.00\% | 20.00\% | 0.8 | 0.8 | 125\% | 125\% |
| 69 | 2 | 2 | 1.0000 | 20.00\% | 20.00\% | 0.4 | 0.4 | 500\% | 500\% |
| 70 | 1 | 2 | 0.5000 | 100.00\% | 100.00\% | 2.0 | 2.0 | 50\% | 50\% |
| Subtotal | 498 | 3,286 |  |  |  | 660.9 | 660.9 | 75\% | 75\% |
| Other | 1 | 6 | 0.1667 | 100.00\% | 100.00\% | 6.0 | 6.0 | 17\% | 17\% |
| Total | 499 | 3,292 |  |  |  | 666.9 | 666.9 | 75\% | 75\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 5C |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements <br> Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 1 | 0.0000 | 15.00\% | 15.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 45 | 0 | 1 | 0.0000 | 15.00\% | 15.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 1 | 1 | 1.0000 | 15.00\% | 15.00\% | 0.2 | 0.2 | 667\% | 667\% |
| 48 | 0 | 3 | 0.0000 | 15.00\% | 15.00\% | 0.5 | 0.5 | 0\% | 0\% |
| 49 | 0 | 2 | 0.0000 | 15.00\% | 15.00\% | 0.3 | 0.3 | 0\% | 0\% |
| 50 | 1 | 3 | 0.3333 | 15.00\% | 15.00\% | 0.5 | 0.5 | 222\% | 222\% |
| 51 | 11 | 18 | 0.6111 | 15.00\% | 15.00\% | 2.7 | 2.7 | 407\% | 407\% |
| 52 | 3 | 6 | 0.5000 | 15.00\% | 15.00\% | 0.9 | 0.9 | 333\% | 333\% |
| 53 | 1 | 4 | 0.2500 | 15.00\% | 15.00\% | 0.6 | 0.6 | 167\% | 167\% |
| 54 | 7 | 9 | 0.7778 | 15.00\% | 15.00\% | 1.4 | 1.4 | 519\% | 519\% |
| 55 | 3 | 7 | 0.4286 | 15.00\% | 15.00\% | 1.1 | 1.1 | 286\% | 286\% |
| 56 | 300 | 1,426 | 0.2104 | 15.00\% | 15.00\% | 213.9 | 213.9 | 140\% | 140\% |
| 57 | 14 | 15 | 0.9333 | 15.00\% | 15.00\% | 2.3 | 2.3 | 622\% | 622\% |
| 58 | 189 | 5,688 | 0.0332 | 15.00\% | 15.00\% | 853.2 | 853.2 | 22\% | 22\% |
| 59 | 50 | 829 | 0.0603 | 15.00\% | 15.00\% | 124.4 | 124.4 | 40\% | 40\% |
| 60 | 25 | 716 | 0.0349 | 15.00\% | 15.00\% | 107.4 | 107.4 | 23\% | 23\% |
| 61 | 31 | 660 | 0.0470 | 15.00\% | 15.00\% | 99.0 | 99.0 | 31\% | 31\% |
| 62 | 36 | 582 | 0.0619 | 25.00\% | 25.00\% | 145.5 | 145.5 | 25\% | 25\% |
| 63 | 1,797 | 12,713 | 0.1414 | 15.00\% | 15.00\% | 1,907.0 | 1,907.0 | 94\% | 94\% |
| 64 | 392 | 827 | 0.4740 | 15.00\% | 15.00\% | 124.1 | 124.1 | 316\% | 316\% |
| 65 | 57 | 441 | 0.1293 | 25.00\% | 25.00\% | 110.3 | 110.3 | 52\% | 52\% |
| 66 | 56 | 320 | 0.1750 | 15.00\% | 15.00\% | 48.0 | 48.0 | 117\% | 117\% |
| 67 | 34 | 223 | 0.1525 | 15.00\% | 15.00\% | 33.5 | 33.5 | 102\% | 102\% |
| 68 | 26 | 168 | 0.1548 | 15.00\% | 15.00\% | 25.2 | 25.2 | 103\% | 103\% |
| 69 | 17 | 111 | 0.1532 | 15.00\% | 15.00\% | 16.7 | 16.7 | 102\% | 102\% |
| 70 | 14 | 76 | 0.1842 | 100.00\% | 100.00\% | 76.0 | 76.0 | 18\% | 18\% |
| Subtotal | 3,065 | 24,850 |  |  |  | 3,894.4 | 3,894.4 | 79\% | 79\% |
| Other | 35 | 254 | 0.1378 | 100.00\% | 100.00\% | 254.0 | 254.0 | 14\% | 14\% |
| Total | 3,100 | 25,104 |  |  |  | 4,148.4 | 4,148.4 | 75\% | 75\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY TOTAL - MEN AND WOMEN

|  | TABLE 6A |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed <br> (3) $\times(6)$ | Expected $(2) /(7)$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 1 | 1 | 1.0000 | 15.00\% | 15.00\% | 0.2 | 0.2 | 667\% | 667\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 2 | 0.0000 | 15.00\% | 15.00\% | 0.3 | 0.3 | 0\% | 0\% |
| 47 | 1 | 4 | 0.2500 | 15.00\% | 15.00\% | 0.6 | 0.6 | 167\% | 167\% |
| 48 | 3 | 6 | 0.5000 | 15.00\% | 15.00\% | 0.9 | 0.9 | 333\% | 333\% |
| 49 | 1 | 7 | 0.1429 | 15.00\% | 15.00\% | 1.1 | 1.1 | 95\% | 95\% |
| 50 | 4 | 18 | 0.2222 | 15.00\% | 15.00\% | 2.7 | 2.7 | 148\% | 148\% |
| 51 | 5 | 19 | 0.2632 | 15.00\% | 15.00\% | 2.9 | 2.9 | 175\% | 175\% |
| 52 | 26 | 230 | 0.1130 | 14.96\% | 14.96\% | 34.4 | 34.4 | 76\% | 76\% |
| 53 | 34 | 253 | 0.1344 | 14.90\% | 14.90\% | 37.7 | 37.7 | 90\% | 90\% |
| 54 | 34 | 259 | 0.1313 | 14.85\% | 14.85\% | 38.5 | 38.5 | 88\% | 88\% |
| 55 | 52 | 261 | 0.1992 | 14.87\% | 14.87\% | 38.8 | 38.8 | 134\% | 134\% |
| 56 | 39 | 242 | 0.1612 | 14.81\% | 14.81\% | 35.9 | 35.9 | 109\% | 109\% |
| 57 | 98 | 697 | 0.1406 | 14.30\% | 14.30\% | 99.7 | 99.7 | 98\% | 98\% |
| 58 | 102 | 735 | 0.1388 | 13.86\% | 13.86\% | 101.9 | 101.9 | 100\% | 100\% |
| 59 | 182 | 3,600 | 0.0506 | 10.76\% | 10.76\% | 387.3 | 387.3 | 47\% | 47\% |
| 60 | 217 | 3,472 | 0.0625 | 10.70\% | 10.70\% | 371.6 | 371.6 | 58\% | 58\% |
| 61 | 203 | 3,307 | 0.0614 | 15.00\% | 15.00\% | 496.1 | 496.1 | 41\% | 41\% |
| 62 | 321 | 3,012 | 0.1066 | 20.51\% | 20.51\% | 617.7 | 617.7 | 52\% | 52\% |
| 63 | 276 | 2,678 | 0.1031 | 15.43\% | 15.43\% | 413.2 | 413.2 | 67\% | 67\% |
| 64 | 674 | 6,560 | 0.1027 | 15.19\% | 15.19\% | 996.5 | 996.5 | 68\% | 68\% |
| 65 | 970 | 5,668 | 0.1711 | 20.15\% | 20.15\% | 1,142.1 | 1,142.1 | 85\% | 85\% |
| 66 | 977 | 4,524 | 0.2160 | 15.13\% | 15.13\% | 684.6 | 684.6 | 143\% | 143\% |
| 67 | 699 | 3,370 | 0.2074 | 15.12\% | 15.12\% | 509.5 | 509.5 | 137\% | 137\% |
| 68 | 534 | 2,646 | 0.2018 | 15.10\% | 15.10\% | 399.6 | 399.6 | 134\% | 134\% |
| 69 | 362 | 2,056 | 0.1761 | 15.10\% | 15.10\% | 310.5 | 310.5 | 117\% | 117\% |
| 70 | 331 | 1,649 | 0.2007 | 100.00\% | 100.00\% | 1,649.0 | 1,649.0 | 20\% | 20\% |
| Subtotal | 6,146 | 45,276 |  |  |  | 8,372.6 | 8,372.6 | 73\% | 73\% |
| Other | 1,172 | 6,048 | 0.1938 | 100.00\% | 100.00\% | 6,048.0 | 6,048.0 | 19\% | 19\% |
| Total | 7,318 | 51,324 |  |  |  | 14,420.6 | 14,420.6 | 51\% | 51\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

| Age | TABLE 6B |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements <br> Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 1 | 1 | 1.0000 | 15.00\% | 15.00\% | 0.2 | 0.2 | 667\% | 667\% |
| 44 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 2 | 0.0000 | 15.00\% | 15.00\% | 0.3 | 0.3 | 0\% | 0\% |
| 47 | 1 | 4 | 0.2500 | 15.00\% | 15.00\% | 0.6 | 0.6 | 167\% | 167\% |
| 48 | 3 | 6 | 0.5000 | 15.00\% | 15.00\% | 0.9 | 0.9 | 333\% | 333\% |
| 49 | 1 | 7 | 0.1429 | 15.00\% | 15.00\% | 1.1 | 1.1 | 95\% | 95\% |
| 50 | 4 | 18 | 0.2222 | 15.00\% | 15.00\% | 2.7 | 2.7 | 148\% | 148\% |
| 51 | 5 | 19 | 0.2632 | 15.00\% | 15.00\% | 2.9 | 2.9 | 175\% | 175\% |
| 52 | 26 | 228 | 0.1140 | 15.00\% | 15.00\% | 34.2 | 34.2 | 76\% | 76\% |
| 53 | 34 | 248 | 0.1371 | 15.00\% | 15.00\% | 37.2 | 37.2 | 91\% | 91\% |
| 54 | 32 | 251 | 0.1275 | 15.00\% | 15.00\% | 37.7 | 37.7 | 85\% | 85\% |
| 55 | 49 | 254 | 0.1929 | 15.00\% | 15.00\% | 38.1 | 38.1 | 129\% | 129\% |
| 56 | 36 | 233 | 0.1545 | 15.00\% | 15.00\% | 35.0 | 35.0 | 103\% | 103\% |
| 57 | 76 | 599 | 0.1269 | 15.00\% | 15.00\% | 89.9 | 89.9 | 85\% | 85\% |
| 58 | 84 | 567 | 0.1481 | 15.00\% | 15.00\% | 85.1 | 85.1 | 99\% | 99\% |
| 59 | 63 | 545 | 0.1156 | 15.00\% | 15.00\% | 81.8 | 81.8 | 77\% | 77\% |
| 60 | 59 | 487 | 0.1211 | 15.00\% | 15.00\% | 73.1 | 73.1 | 81\% | 81\% |
| 61 | 44 | 407 | 0.1081 | 15.00\% | 15.00\% | 61.1 | 61.1 | 72\% | 72\% |
| 62 | 52 | 306 | 0.1699 | 25.00\% | 25.00\% | 76.5 | 76.5 | 68\% | 68\% |
| 63 | 38 | 229 | 0.1659 | 20.00\% | 20.00\% | 45.8 | 45.8 | 83\% | 83\% |
| 64 | 40 | 249 | 0.1606 | 20.00\% | 20.00\% | 49.8 | 49.8 | 80\% | 80\% |
| 65 | 38 | 170 | 0.2235 | 25.00\% | 25.00\% | 42.5 | 42.5 | 89\% | 89\% |
| 66 | 26 | 119 | 0.2185 | 20.00\% | 20.00\% | 23.8 | 23.8 | 109\% | 109\% |
| 67 | 18 | 80 | 0.2250 | 20.00\% | 20.00\% | 16.0 | 16.0 | 113\% | 113\% |
| 68 | 9 | 54 | 0.1667 | 20.00\% | 20.00\% | 10.8 | 10.8 | 83\% | 83\% |
| 69 | 8 | 41 | 0.1951 | 20.00\% | 20.00\% | 8.2 | 8.2 | 98\% | 98\% |
| 70 | 7 | 29 | 0.2414 | 100.00\% | 100.00\% | 29.0 | 29.0 | 24\% | 24\% |
| Subtotal | 754 | 5,153 |  |  |  | 883.8 | 883.8 | 85\% | 85\% |
| Other | 10 | 60 | 0.1667 | 100.00\% | 100.00\% | 60.0 | 60.0 | 17\% | 17\% |
| Total | 764 | 5,213 |  |  |  | 943.8 | 943.8 | 81\% | 81\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 6C |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 2 | 0.0000 | 10.00\% | 10.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 53 | 0 | 5 | 0.0000 | 10.00\% | 10.00\% | 0.5 | 0.5 | 0\% | 0\% |
| 54 | 2 | 8 | 0.2500 | 10.00\% | 10.00\% | 0.8 | 0.8 | 250\% | 250\% |
| 55 | 3 | 7 | 0.4286 | 10.00\% | 10.00\% | 0.7 | 0.7 | 429\% | 429\% |
| 56 | 3 | 9 | 0.3333 | 10.00\% | 10.00\% | 0.9 | 0.9 | 333\% | 333\% |
| 57 | 22 | 98 | 0.2245 | 10.00\% | 10.00\% | 9.8 | 9.8 | 224\% | 224\% |
| 58 | 18 | 168 | 0.1071 | 10.00\% | 10.00\% | 16.8 | 16.8 | 107\% | 107\% |
| 59 | 119 | 3,055 | 0.0390 | 10.00\% | 10.00\% | 305.5 | 305.5 | 39\% | 39\% |
| 60 | 158 | 2,985 | 0.0529 | 10.00\% | 10.00\% | 298.5 | 298.5 | 53\% | 53\% |
| 61 | 159 | 2,900 | 0.0548 | 15.00\% | 15.00\% | 435.0 | 435.0 | 37\% | 37\% |
| 62 | 269 | 2,706 | 0.0994 | 20.00\% | 20.00\% | 541.2 | 541.2 | 50\% | 50\% |
| 63 | 238 | 2,449 | 0.0972 | 15.00\% | 15.00\% | 367.4 | 367.4 | 65\% | 65\% |
| 64 | 634 | 6,311 | 0.1005 | 15.00\% | 15.00\% | 946.7 | 946.7 | 67\% | 67\% |
| 65 | 932 | 5,498 | 0.1695 | 20.00\% | 20.00\% | 1,099.6 | 1,099.6 | 85\% | 85\% |
| 66 | 951 | 4,405 | 0.2159 | 15.00\% | 15.00\% | 660.8 | 660.8 | 144\% | 144\% |
| 67 | 681 | 3,290 | 0.2070 | 15.00\% | 15.00\% | 493.5 | 493.5 | 138\% | 138\% |
| 68 | 525 | 2,592 | 0.2025 | 15.00\% | 15.00\% | 388.8 | 388.8 | 135\% | 135\% |
| 69 | 354 | 2,015 | 0.1757 | 15.00\% | 15.00\% | 302.3 | 302.3 | 117\% | 117\% |
| 70 | 324 | 1,620 | 0.2000 | 100.00\% | 100.00\% | 1,620.0 | 1,620.0 | 20\% | 20\% |
| Subtotal | 5,392 | 40,123 |  |  |  | 7,488.8 | 7,488.8 | 72\% | 72\% |
| Other | 1,162 | 5,988 | 0.1941 | 100.00\% | 100.00\% | 5,988.0 | 5,988.0 | 19\% | 19\% |
| Total | 6,554 | 46,111 |  |  |  | 13,476.8 | 13,476.8 | 49\% | 49\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY TOTAL - MEN AND WOMEN

|  | TABLE 6A |  |  | Assumed | bability | 10-YEAR PERIOD ENDING 6/30/2013Expected Retirements Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 1 | 1 | 1.0000 | 15.00\% | 15.00\% | 0.2 | 0.2 | 667\% | 667\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 2 | 0.0000 | 10.00\% | 10.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 46 | 0 | 4 | 0.0000 | 15.00\% | 15.00\% | 0.6 | 0.6 | 0\% | 0\% |
| 47 | 1 | 6 | 0.1667 | 15.00\% | 15.00\% | 0.9 | 0.9 | 111\% | 111\% |
| 48 | 4 | 11 | 0.3636 | 15.00\% | 15.00\% | 1.7 | 1.7 | 242\% | 242\% |
| 49 | 6 | 16 | 0.3750 | 14.38\% | 14.38\% | 2.3 | 2.3 | 261\% | 261\% |
| 50 | 8 | 30 | 0.2667 | 14.67\% | 14.67\% | 4.4 | 4.4 | 182\% | 182\% |
| 51 | 9 | 40 | 0.2250 | 14.88\% | 14.88\% | 6.0 | 6.0 | 151\% | 151\% |
| 52 | 54 | 418 | 0.1292 | 14.87\% | 14.87\% | 62.2 | 62.2 | 87\% | 87\% |
| 53 | 56 | 435 | 0.1287 | 14.87\% | 14.87\% | 64.7 | 64.7 | 87\% | 87\% |
| 54 | 54 | 419 | 0.1289 | 14.86\% | 14.86\% | 62.3 | 62.3 | 87\% | 87\% |
| 55 | 80 | 411 | 0.1946 | 14.85\% | 14.85\% | 61.1 | 61.1 | 131\% | 131\% |
| 56 | 56 | 357 | 0.1569 | 14.85\% | 14.85\% | 53.0 | 53.0 | 106\% | 106\% |
| 57 | 346 | 2,617 | 0.1322 | 12.27\% | 12.27\% | 321.0 | 321.0 | 108\% | 108\% |
| 58 | 316 | 2,527 | 0.1250 | 12.08\% | 12.08\% | 305.2 | 305.2 | 104\% | 104\% |
| 59 | 440 | 6,769 | 0.0650 | 10.69\% | 10.69\% | 723.6 | 723.6 | 61\% | 61\% |
| 60 | 421 | 6,358 | 0.0662 | 10.62\% | 10.62\% | 675.1 | 675.1 | 62\% | 62\% |
| 61 | 390 | 5,893 | 0.0662 | 15.00\% | 15.00\% | 884.0 | 884.0 | 44\% | 44\% |
| 62 | 631 | 5,245 | 0.1203 | 20.44\% | 20.44\% | 1,072.3 | 1,072.3 | 59\% | 59\% |
| 63 | 492 | 4,435 | 0.1109 | 15.37\% | 15.37\% | 681.5 | 681.5 | 72\% | 72\% |
| 64 | 1,537 | 13,579 | 0.1132 | 15.14\% | 15.14\% | 2,056.3 | 2,056.3 | 75\% | 75\% |
| 65 | 1,862 | 11,482 | 0.1622 | 20.12\% | 20.12\% | 2,309.8 | 2,309.8 | 81\% | 81\% |
| 66 | 1,856 | 9,161 | 0.2026 | 15.10\% | 15.10\% | 1,383.2 | 1,383.2 | 134\% | 134\% |
| 67 | 1,227 | 6,919 | 0.1773 | 15.09\% | 15.09\% | 1,043.8 | 1,043.8 | 118\% | 118\% |
| 68 | 951 | 5,455 | 0.1743 | 15.07\% | 15.07\% | 822.2 | 822.2 | 116\% | 116\% |
| 69 | 670 | 4,293 | 0.1561 | 15.07\% | 15.07\% | 646.9 | 646.9 | 104\% | 104\% |
| 70 | 592 | 3,411 | 0.1736 | 100.00\% | 100.00\% | 3,411.0 | 3,411.0 | 17\% | 17\% |
| Subtotal | 12,060 | 90,294 |  |  |  | 16,655.1 | 16,655.1 | 72\% | 72\% |
| Other | 2,082 | 12,354 | 0.1685 | 100.00\% | 100.00\% | 12,354.0 | 12,354.0 | 17\% | 17\% |
| Total | 14,142 | 102,648 |  |  |  | 29,009.1 | 29,009.1 | 49\% | 49\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 6B |  |  | Assumed | bability | 10-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 1 | 1 | 1.0000 | 15.00\% | 15.00\% | 0.2 | 0.2 | 667\% | 667\% |
| 44 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 4 | 0.0000 | 15.00\% | 15.00\% | 0.6 | 0.6 | 0\% | 0\% |
| 47 | 1 | 6 | 0.1667 | 15.00\% | 15.00\% | 0.9 | 0.9 | 111\% | 111\% |
| 48 | 4 | 11 | 0.3636 | 15.00\% | 15.00\% | 1.7 | 1.7 | 242\% | 242\% |
| 49 | 5 | 14 | 0.3571 | 15.00\% | 15.00\% | 2.1 | 2.1 | 238\% | 238\% |
| 50 | 8 | 28 | 0.2857 | 15.00\% | 15.00\% | 4.2 | 4.2 | 190\% | 190\% |
| 51 | 9 | 39 | 0.2308 | 15.00\% | 15.00\% | 5.9 | 5.9 | 154\% | 154\% |
| 52 | 48 | 407 | 0.1179 | 15.00\% | 15.00\% | 61.1 | 61.1 | 79\% | 79\% |
| 53 | 52 | 424 | 0.1226 | 15.00\% | 15.00\% | 63.6 | 63.6 | 82\% | 82\% |
| 54 | 50 | 407 | 0.1229 | 15.00\% | 15.00\% | 61.1 | 61.1 | 82\% | 82\% |
| 55 | 74 | 399 | 0.1855 | 15.00\% | 15.00\% | 59.9 | 59.9 | 124\% | 124\% |
| 56 | 51 | 346 | 0.1474 | 15.00\% | 15.00\% | 51.9 | 51.9 | 98\% | 98\% |
| 57 | 147 | 1,186 | 0.1239 | 15.00\% | 15.00\% | 177.9 | 177.9 | 83\% | 83\% |
| 58 | 133 | 1,050 | 0.1267 | 15.00\% | 15.00\% | 157.5 | 157.5 | 84\% | 84\% |
| 59 | 111 | 933 | 0.1190 | 15.00\% | 15.00\% | 140.0 | 140.0 | 79\% | 79\% |
| 60 | 91 | 786 | 0.1158 | 15.00\% | 15.00\% | 117.9 | 117.9 | 77\% | 77\% |
| 61 | 67 | 633 | 0.1058 | 15.00\% | 15.00\% | 95.0 | 95.0 | 71\% | 71\% |
| 62 | 71 | 466 | 0.1524 | 25.00\% | 25.00\% | 116.5 | 116.5 | 61\% | 61\% |
| 63 | 53 | 325 | 0.1631 | 20.00\% | 20.00\% | 65.0 | 65.0 | 82\% | 82\% |
| 64 | 56 | 389 | 0.1440 | 20.00\% | 20.00\% | 77.8 | 77.8 | 72\% | 72\% |
| 65 | 50 | 268 | 0.1866 | 25.00\% | 25.00\% | 67.0 | 67.0 | 75\% | 75\% |
| 66 | 37 | 181 | 0.2044 | 20.00\% | 20.00\% | 36.2 | 36.2 | 102\% | 102\% |
| 67 | 30 | 118 | 0.2542 | 20.00\% | 20.00\% | 23.6 | 23.6 | 127\% | 127\% |
| 68 | 10 | 79 | 0.1266 | 20.00\% | 20.00\% | 15.8 | 15.8 | 63\% | 63\% |
| 69 | 11 | 59 | 0.1864 | 20.00\% | 20.00\% | 11.8 | 11.8 | 93\% | 93\% |
| 70 | 9 | 39 | 0.2308 | 100.00\% | 100.00\% | 39.0 | 39.0 | 23\% | 23\% |
| Subtotal | 1,179 | 8,598 |  |  |  | 1,453.8 | 1,453.8 | 81\% | 81\% |
| Other | 17 | 101 | 0.1683 | 100.00\% | 100.00\% | 101.0 | 101.0 | 17\% | 17\% |
| Total | 1,196 | 8,699 |  |  |  | 1,554.8 | 1,554.8 | 77\% | 77\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 6C |  |  | Assumed | bability | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed <br> (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 2 | 0.0000 | 10.00\% | 10.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 1 | 2 | 0.5000 | 10.00\% | 10.00\% | 0.2 | 0.2 | 500\% | 500\% |
| 50 | 0 | 2 | 0.0000 | 10.00\% | 10.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 51 | 0 | 1 | 0.0000 | 10.00\% | 10.00\% | 0.1 | 0.1 | 0\% | 0\% |
| 52 | 6 | 11 | 0.5455 | 10.00\% | 10.00\% | 1.1 | 1.1 | 545\% | 545\% |
| 53 | 4 | 11 | 0.3636 | 10.00\% | 10.00\% | 1.1 | 1.1 | 364\% | 364\% |
| 54 | 4 | 12 | 0.3333 | 10.00\% | 10.00\% | 1.2 | 1.2 | 333\% | 333\% |
| 55 | 6 | 12 | 0.5000 | 10.00\% | 10.00\% | 1.2 | 1.2 | 500\% | 500\% |
| 56 | 5 | 11 | 0.4545 | 10.00\% | 10.00\% | 1.1 | 1.1 | 455\% | 455\% |
| 57 | 199 | 1,431 | 0.1391 | 10.00\% | 10.00\% | 143.1 | 143.1 | 139\% | 139\% |
| 58 | 183 | 1,477 | 0.1239 | 10.00\% | 10.00\% | 147.7 | 147.7 | 124\% | 124\% |
| 59 | 329 | 5,836 | 0.0564 | 10.00\% | 10.00\% | 583.6 | 583.6 | 56\% | 56\% |
| 60 | 330 | 5,572 | 0.0592 | 10.00\% | 10.00\% | 557.2 | 557.2 | 59\% | 59\% |
| 61 | 323 | 5,260 | 0.0614 | 15.00\% | 15.00\% | 789.0 | 789.0 | 41\% | 41\% |
| 62 | 560 | 4,779 | 0.1172 | 20.00\% | 20.00\% | 955.8 | 955.8 | 59\% | 59\% |
| 63 | 439 | 4,110 | 0.1068 | 15.00\% | 15.00\% | 616.5 | 616.5 | 71\% | 71\% |
| 64 | 1,481 | 13,190 | 0.1123 | 15.00\% | 15.00\% | 1,978.5 | 1,978.5 | 75\% | 75\% |
| 65 | 1,812 | 11,214 | 0.1616 | 20.00\% | 20.00\% | 2,242.8 | 2,242.8 | 81\% | 81\% |
| 66 | 1,819 | 8,980 | 0.2026 | 15.00\% | 15.00\% | 1,347.0 | 1,347.0 | 135\% | 135\% |
| 67 | 1,197 | 6,801 | 0.1760 | 15.00\% | 15.00\% | 1,020.2 | 1,020.2 | 117\% | 117\% |
| 68 | 941 | 5,376 | 0.1750 | 15.00\% | 15.00\% | 806.4 | 806.4 | 117\% | 117\% |
| 69 | 659 | 4,234 | 0.1556 | 15.00\% | 15.00\% | 635.1 | 635.1 | 104\% | 104\% |
| 70 | 583 | 3,372 | 0.1729 | 100.00\% | 100.00\% | 3,372.0 | 3,372.0 | 17\% | 17\% |
| Subtotal | 10,881 | 81,696 |  |  |  | 15,201.3 | 15,201.3 | 72\% | 72\% |
| Other | 2,065 | 12,253 | 0.1685 | 100.00\% | 100.00\% | 12,253.0 | 12,253.0 | 17\% | 17\% |
| Total | 12,946 | 93,949 |  |  |  | 27,454.3 | 27,454.3 | 47\% | 47\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL RETIREMENT EXPERIENCE OF ACTIVE MEMBERS WITH UNREDUCED SERVICE TOTAL - MEN AND WOMEN

| $\begin{aligned} & \text { Plan } \\ & \text { Year } \end{aligned}$ | TABLE 6D |  |  | 10-YEAR PER | Retirement Rate |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending <br> June 30, | Life Years Exposed | Actual <br> Retirements | Expected Retirements | Actual / Expected | Actual <br> (3) / (2) | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 11,389 | 2,315 | 4,580.0 | 51\% | 20.33\% | 40.21\% |
| 2005 | 12,206 | 1,404 | 5,029.4 | 28\% | 11.50\% | 41.20\% |
| 2006 | 14,562 | 2,463 | 5,985.9 | 41\% | 16.91\% | 41.11\% |
| 2007 | 15,882 | 2,939 | 6,484.5 | 45\% | 18.51\% | 40.83\% |
| 2008 | 16,531 | 2,830 | 6,802.4 | 42\% | 17.12\% | 41.15\% |
| 2009 | 17,808 | 2,625 | 7,554.8 | 35\% | 14.74\% | 42.42\% |
| 2010 | 19,226 | 2,849 | 8,297.5 | 34\% | 14.82\% | 43.16\% |
| 2011 | 20,311 | 3,606 | 8,651.6 | 42\% | 17.75\% | 42.60\% |
| 2012 | 21,004 | 3,019 | 8,986.1 | 34\% | 14.37\% | 42.78\% |
| 2013 | 21,872 | 2,770 | 9,301.6 | 30\% | 12.66\% | 42.53\% |
| Total | 170,791 | 26,820 | 71,673.7 | 37\% | 15.70\% | 41.97\% |

*The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 40 .

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL RETIREMENT EXPERIENCE OF ACTIVE MEMBERS WITH REDUCED SERVICE

TOTAL - MEN AND WOMEN

|  | TABLE 7A |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2)/(3) } \end{aligned}$ | Expected | Proposed | Expected <br> (3) $\times$ (5) | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 425 | 10,377 | 0.0410 | 2.00\% | 3.00\% | 207.5 | 311.3 | 205\% | 137\% |
| 56 | 391 | 10,141 | 0.0386 | 2.00\% | 3.00\% | 202.8 | 304.2 | 193\% | 129\% |
| 57 | 402 | 9,746 | 0.0412 | 2.00\% | 3.00\% | 194.9 | 292.4 | 206\% | 137\% |
| 58 | 404 | 9,355 | 0.0432 | 2.00\% | 3.00\% | 187.1 | 280.7 | 216\% | 144\% |
| 59 | 400 | 8,928 | 0.0448 | 3.00\% | 4.00\% | 267.8 | 357.1 | 149\% | 112\% |
| 60 | 485 | 8,534 | 0.0568 | 4.00\% | 5.00\% | 341.4 | 426.7 | 142\% | 114\% |
| 61 | 512 | 8,036 | 0.0637 | 5.00\% | 6.00\% | 401.8 | 482.2 | 127\% | 106\% |
| 62 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 3,019 | 65,117 |  |  |  | 1,803.4 | 2,454.6 | 167\% | 123\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 3,019 | 65,117 |  |  |  | 1,803.4 | 2,454.6 | 167\% | 123\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL RETIREMENT EXPERIENCE OF ACTIVE MEMBERS WITH REDUCED SERVICE

TOTAL - MEN AND WOMEN

|  | TABLE 7A |  |  | Assumed | bability | 10-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 588 | 25,321 | 0.0232 | 2.00\% | 3.00\% | 506.4 | 759.6 | 116\% | 77\% |
| 56 | 549 | 24,397 | 0.0225 | 2.00\% | 3.00\% | 487.9 | 731.9 | 113\% | 75\% |
| 57 | 524 | 23,482 | 0.0223 | 2.00\% | 3.00\% | 469.6 | 704.5 | 112\% | 74\% |
| 58 | 542 | 22,180 | 0.0244 | 2.00\% | 3.00\% | 443.6 | 665.4 | 122\% | 81\% |
| 59 | 492 | 20,823 | 0.0236 | 3.00\% | 4.00\% | 624.7 | 832.9 | 79\% | 59\% |
| 60 | 559 | 19,535 | 0.0286 | 4.00\% | 5.00\% | 781.4 | 976.8 | 72\% | 57\% |
| 61 | 577 | 18,040 | 0.0320 | 5.00\% | 6.00\% | 902.0 | 1,082.4 | 64\% | 53\% |
| 62 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 3,831 | 153,778 |  |  |  | 4,215.7 | 5,753.5 | 91\% | 67\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 3,831 | 153,778 |  |  |  | 4,215.7 | 5,753.5 | 91\% | 67\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL RETIREMENT EXPERIENCE OF ACTIVE MEMBERS WITH REDUCED SERVICE TOTAL - MEN AND WOMEN

| Plan <br> Year | TABLE 7B |  | 10-YEAR PERIOD ENDING 6/30/2013 <br> Retirement Rate |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending June 30, | Life Years Exposed | Actual <br> Retirements | Expected Retirements | Actual / Expected | $\begin{gathered} \text { Actual } \\ (3) /(2) \\ \hline \end{gathered}$ | $\begin{aligned} & \text { Expected } \\ & \text { (4) / (2) } \end{aligned}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 13,282 | 94 | 356.2 | 26\% | 0.71\% | 2.68\% |
| 2005 | 14,071 | 95 | 378.1 | 25\% | 0.68\% | 2.69\% |
| 2006 | 14,716 | 109 | 396.3 | 28\% | 0.74\% | 2.69\% |
| 2007 | 15,230 | 208 | 414.9 | 50\% | 1.37\% | 2.72\% |
| 2008 | 15,588 | 128 | 431.5 | 30\% | 0.82\% | 2.77\% |
| 2009 | 15,774 | 178 | 435.3 | 41\% | 1.13\% | 2.76\% |
| 2010 | 16,373 | 652 | 451.3 | 144\% | 3.98\% | 2.76\% |
| 2011 | 16,375 | 926 | 452.4 | 205\% | 5.65\% | 2.76\% |
| 2012 | 16,180 | 583 | 446.3 | 131\% | 3.60\% | 2.76\% |
| 2013 | 16,369 | 1,038 | 449.3 | 231\% | 6.34\% | 2.75\% |
| Total | 153,958 | 4,011 | 4,211.7 | 95\% | 2.61\% | 2.74\% |

*The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 40 .

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL
ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS
MEN

| Age | TABLE 8A |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 65 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 182 | 0.00000 | 0.040\% | 0.040\% | 0.1 | 0.1 | 0\% | 0\% |
| 22 | 0 | 394 | 0.00000 | 0.040\% | 0.040\% | 0.2 | 0.2 | 0\% | 0\% |
| 23 | 0 | 711 | 0.00000 | 0.040\% | 0.040\% | 0.3 | 0.3 | 0\% | 0\% |
| 24 | 0 | 1,177 | 0.00000 | 0.040\% | 0.040\% | 0.5 | 0.5 | 0\% | 0\% |
| 25 | 0 | 1,612 | 0.00000 | 0.040\% | 0.040\% | 0.6 | 0.6 | 0\% | 0\% |
| 26 | 1 | 1,968 | 0.00051 | 0.044\% | 0.040\% | 0.9 | 0.8 | 115\% | 127\% |
| 27 | 0 | 2,341 | 0.00000 | 0.048\% | 0.040\% | 1.1 | 0.9 | 0\% | 0\% |
| 28 | 0 | 2,603 | 0.00000 | 0.052\% | 0.044\% | 1.4 | 1.1 | 0\% | 0\% |
| 29 | 2 | 2,725 | 0.00073 | 0.056\% | 0.048\% | 1.5 | 1.3 | 131\% | 153\% |
| 30 | 0 | 3,004 | 0.00000 | 0.060\% | 0.052\% | 1.8 | 1.6 | 0\% | 0\% |
| 31 | 2 | 3,178 | 0.00063 | 0.064\% | 0.056\% | 2.0 | 1.8 | 98\% | 112\% |
| 32 | 2 | 3,330 | 0.00060 | 0.068\% | 0.060\% | 2.3 | 2.0 | 88\% | 100\% |
| 33 | 3 | 3,437 | 0.00087 | 0.072\% | 0.064\% | 2.5 | 2.2 | 121\% | 136\% |
| 34 | 1 | 3,467 | 0.00029 | 0.076\% | 0.068\% | 2.6 | 2.4 | 38\% | 42\% |
| 35 | 4 | 3,554 | 0.00113 | 0.080\% | 0.072\% | 2.8 | 2.6 | 141\% | 156\% |
| 36 | 0 | 3,571 | 0.00000 | 0.084\% | 0.076\% | 3.0 | 2.7 | 0\% | 0\% |
| 37 | 1 | 3,743 | 0.00027 | 0.088\% | 0.080\% | 3.3 | 3.0 | 30\% | 33\% |
| 38 | 6 | 3,925 | 0.00153 | 0.092\% | 0.084\% | 3.6 | 3.3 | 166\% | 182\% |
| 39 | 2 | 4,256 | 0.00047 | 0.096\% | 0.088\% | 4.1 | 3.7 | 49\% | 53\% |
| 40 | 0 | 4,555 | 0.00000 | 0.100\% | 0.092\% | 4.6 | 4.2 | 0\% | 0\% |
| 41 | 2 | 4,930 | 0.00041 | 0.110\% | 0.096\% | 5.4 | 4.7 | 37\% | 42\% |
| 42 | 6 | 5,320 | 0.00113 | 0.120\% | 0.100\% | 6.4 | 5.3 | 94\% | 113\% |
| 43 | 8 | 5,561 | 0.00144 | 0.130\% | 0.110\% | 7.2 | 6.1 | 111\% | 131\% |
| 44 | 9 | 5,920 | 0.00152 | 0.140\% | 0.120\% | 8.3 | 7.1 | 109\% | 127\% |
| 45 | 11 | 6,338 | 0.00174 | 0.150\% | 0.130\% | 9.5 | 8.2 | 116\% | 134\% |
| 46 | 7 | 6,909 | 0.00101 | 0.160\% | 0.140\% | 11.1 | 9.7 | 63\% | 72\% |
| 47 | 9 | 7,447 | 0.00121 | 0.170\% | 0.150\% | 12.7 | 11.2 | 71\% | 81\% |
| 48 | 7 | 7,801 | 0.00090 | 0.180\% | 0.160\% | 14.0 | 12.5 | 50\% | 56\% |
| 49 | 11 | 8,259 | 0.00133 | 0.190\% | 0.170\% | 15.7 | 14.0 | 70\% | 78\% |
| 50 | 10 | 8,476 | 0.00118 | 0.200\% | 0.180\% | 17.0 | 15.3 | 59\% | 66\% |
| 51 | 9 | 8,500 | 0.00106 | 0.220\% | 0.190\% | 18.7 | 16.2 | 48\% | 56\% |
| 52 | 15 | 8,597 | 0.00174 | 0.240\% | 0.200\% | 20.6 | 17.2 | 73\% | 87\% |
| 53 | 24 | 8,562 | 0.00280 | 0.260\% | 0.220\% | 22.3 | 18.8 | 108\% | 127\% |
| 54 | 12 | 8,494 | 0.00141 | 0.280\% | 0.240\% | 23.8 | 20.4 | 50\% | 59\% |
| 55 | 17 | 8,520 | 0.00200 | 0.300\% | 0.260\% | 25.6 | 22.2 | 67\% | 77\% |
| 56 | 15 | 8,131 | 0.00184 | 0.320\% | 0.280\% | 26.0 | 22.8 | 58\% | 66\% |
| 57 | 25 | 7,756 | 0.00322 | 0.340\% | 0.300\% | 26.4 | 23.3 | 95\% | 107\% |
| 58 | 19 | 7,355 | 0.00258 | 0.360\% | 0.320\% | 26.5 | 23.5 | 72\% | 81\% |
| 59 | 19 | 6,903 | 0.00275 | 0.380\% | 0.340\% | 26.2 | 23.5 | 72\% | 81\% |
| 60 | 21 | 6,543 | 0.00321 | 0.400\% | 0.360\% | 26.2 | 23.6 | 80\% | 89\% |
| 61 | 20 | 6,149 | 0.00325 | 0.420\% | 0.380\% | 25.8 | 23.4 | 77\% | 86\% |
| 62 | 22 | 5,588 | 0.00394 | 0.440\% | 0.400\% | 24.6 | 22.4 | 89\% | 98\% |
| 63 | 18 | 4,485 | 0.00401 | 0.460\% | 0.420\% | 20.6 | 18.8 | 87\% | 96\% |
| 64 | 14 | 3,621 | 0.00387 | 0.480\% | 0.440\% | 17.4 | 15.9 | 81\% | 88\% |
| 65 | 12 | 2,905 | 0.00413 | 0.500\% | 0.460\% | 14.5 | 13.4 | 83\% | 90\% |
| 66 | 6 | 2,359 | 0.00254 | 0.540\% | 0.480\% | 12.7 | 11.3 | 47\% | 53\% |
| 67 | 5 | 1,806 | 0.00277 | 0.580\% | 0.500\% | 10.5 | 9.0 | 48\% | 55\% |
| 68 | 9 | 1,439 | 0.00625 | 0.620\% | 0.540\% | 8.9 | 7.8 | 101\% | 116\% |
| 69 | 7 | 1,178 | 0.00594 | 0.660\% | 0.580\% | 7.8 | 6.8 | 90\% | 102\% |
| 70 | 5 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 72 | 7 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 73 | 2 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 74 | 4 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| Other | 19 | 0 | N/A | 0.000\% | N/A | 0 | 0 | 0\% | 0\% |
| Total | 430 | 229,650 |  |  |  | 531.4 | 469.5 | 81\% | 92\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL
ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

| Age | TABLE 8B |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 26 | 0.00000 | 0.030\% | 0.030\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 97 | 0.00000 | 0.030\% | 0.030\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 189 | 0.00000 | 0.030\% | 0.030\% | 0.1 | 0.1 | 0\% | 0\% |
| 23 | 0 | 474 | 0.00000 | 0.030\% | 0.030\% | 0.1 | 0.1 | 0\% | 0\% |
| 24 | 1 | 980 | 0.00102 | 0.030\% | 0.030\% | 0.3 | 0.3 | 340\% | 340\% |
| 25 | 0 | 1,607 | 0.00000 | 0.030\% | 0.030\% | 0.5 | 0.5 | 0\% | 0\% |
| 26 | 0 | 2,283 | 0.00000 | 0.032\% | 0.030\% | 0.7 | 0.7 | 0\% | 0\% |
| 27 | 0 | 2,940 | 0.00000 | 0.034\% | 0.030\% | 1.0 | 0.9 | 0\% | 0\% |
| 28 | 0 | 3,477 | 0.00000 | 0.036\% | 0.032\% | 1.3 | 1.1 | 0\% | 0\% |
| 29 | 1 | 3,974 | 0.00025 | 0.038\% | 0.034\% | 1.5 | 1.4 | 66\% | 74\% |
| 30 | 0 | 4,321 | 0.00000 | 0.040\% | 0.036\% | 1.7 | 1.6 | 0\% | 0\% |
| 31 | 1 | 4,590 | 0.00022 | 0.042\% | 0.038\% | 1.9 | 1.7 | 52\% | 57\% |
| 32 | 3 | 4,793 | 0.00063 | 0.044\% | 0.040\% | 2.1 | 1.9 | 142\% | 156\% |
| 33 | 2 | 5,024 | 0.00040 | 0.046\% | 0.042\% | 2.3 | 2.1 | 87\% | 95\% |
| 34 | 0 | 5,253 | 0.00000 | 0.048\% | 0.044\% | 2.5 | 2.3 | 0\% | 0\% |
| 35 | 1 | 5,350 | 0.00019 | 0.050\% | 0.046\% | 2.7 | 2.5 | 37\% | 41\% |
| 36 | 2 | 5,372 | 0.00037 | 0.052\% | 0.048\% | 2.8 | 2.6 | 72\% | 78\% |
| 37 | 1 | 5,526 | 0.00018 | 0.054\% | 0.050\% | 3.0 | 2.8 | 34\% | 36\% |
| 38 | 2 | 5,577 | 0.00036 | 0.056\% | 0.052\% | 3.1 | 2.9 | 64\% | 69\% |
| 39 | 2 | 5,963 | 0.00034 | 0.058\% | 0.054\% | 3.5 | 3.2 | 58\% | 62\% |
| 40 | 5 | 6,374 | 0.00078 | 0.060\% | 0.056\% | 3.8 | 3.6 | 131\% | 140\% |
| 41 | 0 | 6,709 | 0.00000 | 0.068\% | 0.058\% | 4.6 | 3.9 | 0\% | 0\% |
| 42 | 2 | 7,173 | 0.00028 | 0.076\% | 0.060\% | 5.5 | 4.3 | 37\% | 46\% |
| 43 | 3 | 7,553 | 0.00040 | 0.084\% | 0.068\% | 6.3 | 5.1 | 47\% | 58\% |
| 44 | 5 | 7,908 | 0.00063 | 0.092\% | 0.076\% | 7.3 | 6.0 | 69\% | 83\% |
| 45 | 6 | 8,473 | 0.00071 | 0.100\% | 0.084\% | 8.5 | 7.1 | 71\% | 84\% |
| 46 | 8 | 8,946 | 0.00089 | 0.110\% | 0.092\% | 9.8 | 8.2 | 81\% | 97\% |
| 47 | 4 | 9,441 | 0.00042 | 0.120\% | 0.100\% | 11.3 | 9.4 | 35\% | 42\% |
| 48 | 3 | 9,738 | 0.00031 | 0.130\% | 0.110\% | 12.7 | 10.7 | 24\% | 28\% |
| 49 | 8 | 10,089 | 0.00079 | 0.140\% | 0.120\% | 14.1 | 12.1 | 57\% | 66\% |
| 50 | 11 | 10,303 | 0.00107 | 0.150\% | 0.130\% | 15.5 | 13.4 | 71\% | 82\% |
| 51 | 7 | 10,464 | 0.00067 | 0.160\% | 0.140\% | 16.7 | 14.6 | 42\% | 48\% |
| 52 | 16 | 10,610 | 0.00151 | 0.170\% | 0.150\% | 18.0 | 15.9 | 89\% | 101\% |
| 53 | 11 | 10,672 | 0.00103 | 0.180\% | 0.160\% | 19.2 | 17.1 | 57\% | 64\% |
| 54 | 12 | 10,517 | 0.00114 | 0.190\% | 0.170\% | 20.0 | 17.9 | 60\% | 67\% |
| 55 | 14 | 10,330 | 0.00136 | 0.200\% | 0.180\% | 20.7 | 18.6 | 68\% | 75\% |
| 56 | 12 | 9,788 | 0.00123 | 0.210\% | 0.190\% | 20.6 | 18.6 | 58\% | 65\% |
| 57 | 10 | 9,112 | 0.00110 | 0.220\% | 0.200\% | 20.0 | 18.2 | 50\% | 55\% |
| 58 | 13 | 8,616 | 0.00151 | 0.230\% | 0.210\% | 19.8 | 18.1 | 66\% | 72\% |
| 59 | 21 | 8,038 | 0.00261 | 0.240\% | 0.220\% | 19.3 | 17.7 | 109\% | 119\% |
| 60 | 11 | 7,582 | 0.00145 | 0.250\% | 0.230\% | 19.0 | 17.4 | 58\% | 63\% |
| 61 | 23 | 7,051 | 0.00326 | 0.260\% | 0.240\% | 18.3 | 16.9 | 125\% | 136\% |
| 62 | 18 | 6,500 | 0.00277 | 0.270\% | 0.250\% | 17.6 | 16.3 | 103\% | 111\% |
| 63 | 15 | 5,400 | 0.00278 | 0.280\% | 0.260\% | 15.1 | 14.0 | 99\% | 107\% |
| 64 | 11 | 4,271 | 0.00258 | 0.290\% | 0.270\% | 12.4 | 11.5 | 89\% | 95\% |
| 65 | 7 | 3,490 | 0.00201 | 0.300\% | 0.280\% | 10.5 | 9.8 | 67\% | 72\% |
| 66 | 8 | 2,717 | 0.00294 | 0.320\% | 0.290\% | 8.7 | 7.9 | 92\% | 102\% |
| 67 | 11 | 1,974 | 0.00557 | 0.340\% | 0.300\% | 6.7 | 5.9 | 164\% | 186\% |
| 68 | 11 | 1,497 | 0.00735 | 0.360\% | 0.320\% | 5.4 | 4.8 | 204\% | 230\% |
| 69 | 4 | 1,095 | 0.00365 | 0.380\% | 0.340\% | 4.2 | 3.7 | 96\% | 107\% |
| 70 | 2 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 71 | 10 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 72 | 3 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 73 | 4 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 74 | 1 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| Other | 11 | 0 | N/A | 0.000\% | N/A | 0 | 0 | 0\% | 0\% |
| Total | 337 | 290,247 |  |  |  | 422.6 | 377.5 | 80\% | 89\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Age | TABLE 8C |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 91 | 0.00000 | 0.037\% | 0.037\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 279 | 0.00000 | 0.037\% | 0.037\% | 0.1 | 0.1 | 0\% | 0\% |
| 22 | 0 | 583 | 0.00000 | 0.037\% | 0.037\% | 0.2 | 0.2 | 0\% | 0\% |
| 23 | 0 | 1,185 | 0.00000 | 0.036\% | 0.036\% | 0.4 | 0.4 | 0\% | 0\% |
| 24 | 1 | 2,157 | 0.00046 | 0.035\% | 0.035\% | 0.8 | 0.8 | 131\% | 131\% |
| 25 | 0 | 3,219 | 0.00000 | 0.035\% | 0.035\% | 1.1 | 1.1 | 0\% | 0\% |
| 26 | 1 | 4,251 | 0.00024 | 0.038\% | 0.035\% | 1.6 | 1.5 | 63\% | 68\% |
| 27 | 0 | 5,281 | 0.00000 | 0.040\% | 0.034\% | 2.1 | 1.8 | 0\% | 0\% |
| 28 | 0 | 6,080 | 0.00000 | 0.043\% | 0.037\% | 2.6 | 2.3 | 0\% | 0\% |
| 29 | 3 | 6,699 | 0.00045 | 0.045\% | 0.040\% | 3.0 | 2.7 | 99\% | 113\% |
| 30 | 0 | 7,325 | 0.00000 | 0.048\% | 0.043\% | 3.5 | 3.1 | 0\% | 0\% |
| 31 | 3 | 7,768 | 0.00039 | 0.051\% | 0.045\% | 4.0 | 3.5 | 76\% | 85\% |
| 32 | 5 | 8,123 | 0.00062 | 0.054\% | 0.048\% | 4.4 | 3.9 | 114\% | 128\% |
| 33 | 5 | 8,461 | 0.00059 | 0.057\% | 0.051\% | 4.8 | 4.3 | 104\% | 116\% |
| 34 | 1 | 8,720 | 0.00011 | 0.059\% | 0.054\% | 5.2 | 4.7 | 19\% | 21\% |
| 35 | 5 | 8,904 | 0.00056 | 0.062\% | 0.056\% | 5.5 | 5.0 | 91\% | 100\% |
| 36 | 2 | 8,943 | 0.00022 | 0.065\% | 0.059\% | 5.8 | 5.3 | 35\% | 38\% |
| 37 | 2 | 9,269 | 0.00022 | 0.068\% | 0.062\% | 6.3 | 5.8 | 32\% | 35\% |
| 38 | 8 | 9,502 | 0.00084 | 0.071\% | 0.065\% | 6.7 | 6.2 | 119\% | 129\% |
| 39 | 4 | 10,219 | 0.00039 | 0.074\% | 0.068\% | 7.5 | 7.0 | 53\% | 57\% |
| 40 | 5 | 10,929 | 0.00046 | 0.077\% | 0.071\% | 8.4 | 7.8 | 60\% | 64\% |
| 41 | 2 | 11,639 | 0.00017 | 0.086\% | 0.074\% | 10.0 | 8.6 | 20\% | 23\% |
| 42 | 8 | 12,493 | 0.00064 | 0.095\% | 0.077\% | 11.8 | 9.6 | 68\% | 83\% |
| 43 | 11 | 13,114 | 0.00084 | 0.104\% | 0.086\% | 13.6 | 11.3 | 81\% | 98\% |
| 44 | 14 | 13,828 | 0.00101 | 0.113\% | 0.095\% | 15.6 | 13.1 | 90\% | 107\% |
| 45 | 17 | 14,811 | 0.00115 | 0.121\% | 0.104\% | 18.0 | 15.4 | 95\% | 111\% |
| 46 | 15 | 15,855 | 0.00095 | 0.132\% | 0.113\% | 20.9 | 17.9 | 72\% | 84\% |
| 47 | 13 | 16,888 | 0.00077 | 0.142\% | 0.122\% | 24.0 | 20.6 | 54\% | 63\% |
| 48 | 10 | 17,539 | 0.00057 | 0.152\% | 0.132\% | 26.7 | 23.2 | 37\% | 43\% |
| 49 | 19 | 18,348 | 0.00104 | 0.163\% | 0.143\% | 29.8 | 26.1 | 64\% | 73\% |
| 50 | 21 | 18,779 | 0.00112 | 0.173\% | 0.153\% | 32.4 | 28.7 | 65\% | 73\% |
| 51 | 16 | 18,964 | 0.00084 | 0.187\% | 0.162\% | 35.4 | 30.8 | 45\% | 52\% |
| 52 | 31 | 19,207 | 0.00161 | 0.201\% | 0.172\% | 38.7 | 33.1 | 80\% | 94\% |
| 53 | 35 | 19,234 | 0.00182 | 0.216\% | 0.187\% | 41.5 | 35.9 | 84\% | 97\% |
| 54 | 24 | 19,011 | 0.00126 | 0.230\% | 0.201\% | 43.8 | 38.3 | 55\% | 63\% |
| 55 | 31 | 18,850 | 0.00164 | 0.245\% | 0.216\% | 46.2 | 40.7 | 67\% | 76\% |
| 56 | 27 | 17,919 | 0.00151 | 0.260\% | 0.231\% | 46.6 | 41.4 | 58\% | 65\% |
| 57 | 35 | 16,868 | 0.00207 | 0.275\% | 0.246\% | 46.4 | 41.5 | 75\% | 84\% |
| 58 | 32 | 15,971 | 0.00200 | 0.290\% | 0.261\% | 46.3 | 41.6 | 69\% | 77\% |
| 59 | 40 | 14,941 | 0.00268 | 0.305\% | 0.275\% | 45.5 | 41.2 | 88\% | 97\% |
| 60 | 32 | 14,125 | 0.00227 | 0.319\% | 0.290\% | 45.1 | 41.0 | 71\% | 78\% |
| 61 | 43 | 13,200 | 0.00326 | 0.335\% | 0.305\% | 44.2 | 40.3 | 97\% | 107\% |
| 62 | 40 | 12,088 | 0.00331 | 0.349\% | 0.319\% | 42.1 | 38.6 | 95\% | 104\% |
| 63 | 33 | 9,885 | 0.00334 | 0.362\% | 0.333\% | 35.8 | 32.9 | 92\% | 100\% |
| 64 | 25 | 7,892 | 0.00317 | 0.377\% | 0.348\% | 29.8 | 27.5 | 84\% | 91\% |
| 65 | 19 | 6,395 | 0.00297 | 0.391\% | 0.362\% | 25.0 | 23.1 | 76\% | 82\% |
| 66 | 14 | 5,076 | 0.00276 | 0.422\% | 0.378\% | 21.4 | 19.2 | 65\% | 73\% |
| 67 | 16 | 3,780 | 0.00423 | 0.455\% | 0.396\% | 17.2 | 15.0 | 93\% | 107\% |
| 68 | 20 | 2,936 | 0.00681 | 0.487\% | 0.428\% | 14.3 | 12.6 | 140\% | 159\% |
| 69 | 11 | 2,273 | 0.00484 | 0.525\% | 0.464\% | 11.9 | 10.6 | 92\% | 104\% |
| 70 | 7 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 71 | 10 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 72 | 10 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 73 | 6 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 74 | 5 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Other | 30 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Total | 767 | 519,897 |  |  |  | 954.0 | 847.0 | 80\% | 91\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL
ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS
MEN

| Age | TABLE 8A GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 2,529 | 0.00000 | 0.040\% | 0.040\% | 1.0 | 1.0 | 0\% | 0\% |
| 25-29 | 3 | 11,249 | 0.00027 | 0.049\% | 0.043\% | 5.5 | 4.8 | 54\% | 62\% |
| 30-34 | 8 | 16,416 | 0.00049 | 0.068\% | 0.060\% | 11.2 | 9.9 | 71\% | 81\% |
| 35-39 | 13 | 19,049 | 0.00068 | 0.088\% | 0.080\% | 16.8 | 15.3 | 77\% | 85\% |
| 40-44 | 25 | 26,286 | 0.00095 | 0.121\% | 0.104\% | 31.9 | 27.5 | 78\% | 91\% |
| 45-49 | 45 | 36,754 | 0.00122 | 0.171\% | 0.151\% | 63.0 | 55.6 | 71\% | 81\% |
| 50-54 | 70 | 42,629 | 0.00164 | 0.240\% | 0.206\% | 102.3 | 87.8 | 68\% | 80\% |
| 55-59 | 95 | 38,665 | 0.00246 | 0.338\% | 0.298\% | 130.7 | 115.2 | 73\% | 82\% |
| 60-64 | 95 | 26,386 | 0.00360 | 0.434\% | 0.394\% | 114.6 | 104.0 | 83\% | 91\% |
| 65-69 | 39 | 9,687 | 0.00403 | 0.562\% | 0.499\% | 54.4 | 48.3 | 72\% | 81\% |
| 70-74 | 18 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 19 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 430 | 229,650 |  |  |  | 531.4 | 469.5 | 81\% | 92\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL
ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

| Age | TABLE 8B GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 1 | 1,766 | 0.00057 | 0.030\% | 0.030\% | 0.5 | 0.5 | 189\% | 189\% |
| 25-29 | 1 | 14,281 | 0.00007 | 0.035\% | 0.032\% | 5.0 | 4.5 | 20\% | 22\% |
| 30-34 | 6 | 23,981 | 0.00025 | 0.044\% | 0.040\% | 10.6 | 9.6 | 57\% | 62\% |
| 35-39 | 8 | 27,788 | 0.00029 | 0.054\% | 0.050\% | 15.0 | 13.9 | 53\% | 57\% |
| 40-44 | 15 | 35,717 | 0.00042 | 0.077\% | 0.064\% | 27.5 | 22.9 | 55\% | 65\% |
| 45-49 | 29 | 46,687 | 0.00062 | 0.121\% | 0.102\% | 56.4 | 47.6 | 51\% | 61\% |
| 50-54 | 57 | 52,566 | 0.00108 | 0.170\% | 0.150\% | 89.4 | 78.9 | 64\% | 72\% |
| 55-59 | 70 | 45,884 | 0.00153 | 0.219\% | 0.199\% | 100.4 | 91.2 | 70\% | 77\% |
| 60-64 | 78 | 30,804 | 0.00253 | 0.267\% | 0.247\% | 82.3 | 76.2 | 95\% | 102\% |
| 65-69 | 41 | 10,773 | 0.00381 | 0.329\% | 0.298\% | 35.4 | 32.1 | 116\% | 128\% |
| 70-74 | 20 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 11 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 337 | 290,247 |  |  |  | 422.6 | 377.5 | 80\% | 89\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL
ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS
MEN AND WOMEN

|  | TABLE 8C GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed (8) / (3) | Expected | Proposed | Expected $(2) /(7)$ | Proposed $(\mathbf{2}) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 1 | 4,295 | 0.00023 | 0.036\% | 0.036\% | 1.5 | 1.5 | 65\% | 65\% |
| 25-29 | 4 | 25,530 | 0.00016 | 0.041\% | 0.037\% | 10.5 | 9.3 | 38\% | 43\% |
| 30-34 | 14 | 40,397 | 0.00035 | 0.054\% | 0.048\% | 21.8 | 19.5 | 64\% | 72\% |
| 35-39 | 21 | 46,837 | 0.00045 | 0.068\% | 0.062\% | 31.9 | 29.2 | 66\% | 72\% |
| 40-44 | 40 | 62,003 | 0.00065 | 0.096\% | 0.081\% | 59.3 | 50.4 | 67\% | 79\% |
| 45-49 | 74 | 83,441 | 0.00089 | 0.143\% | 0.124\% | 119.4 | 103.2 | 62\% | 72\% |
| 50-54 | 127 | 95,195 | 0.00133 | 0.201\% | 0.175\% | 191.8 | 166.7 | 66\% | 76\% |
| 55-59 | 165 | 84,549 | 0.00195 | 0.273\% | 0.244\% | 231.0 | 206.4 | 71\% | 80\% |
| 60-64 | 173 | 57,190 | 0.00303 | 0.344\% | 0.315\% | 196.9 | 180.2 | 88\% | 96\% |
| 65-69 | 80 | 20,460 | 0.00391 | 0.439\% | 0.393\% | 89.9 | 80.4 | 89\% | 99\% |
| 70-74 | 38 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 30 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 767 | 519,897 |  |  |  | 954.0 | 847.0 | 80\% | 91\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS

MEN

| Age | TABLE 8A |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate $\qquad$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected $(2) /(7)$ | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 146 | 0.00000 | 0.040\% | 0.040\% | 0.1 | 0.1 | 0\% | 0\% |
| 21 | 0 | 431 | 0.00000 | 0.040\% | 0.040\% | 0.2 | 0.2 | 0\% | 0\% |
| 22 | 0 | 857 | 0.00000 | 0.040\% | 0.040\% | 0.3 | 0.3 | 0\% | 0\% |
| 23 | 0 | 1,494 | 0.00000 | 0.040\% | 0.040\% | 0.6 | 0.6 | 0\% | 0\% |
| 24 | 0 | 2,374 | 0.00000 | 0.040\% | 0.040\% | 0.9 | 0.9 | 0\% | 0\% |
| 25 | 2 | 3,197 | 0.00063 | 0.040\% | 0.040\% | 1.3 | 1.3 | 156\% | 156\% |
| 26 | 1 | 3,996 | 0.00025 | 0.044\% | 0.040\% | 1.8 | 1.6 | 57\% | 63\% |
| 27 | 0 | 4,718 | 0.00000 | 0.048\% | 0.040\% | 2.3 | 1.9 | 0\% | 0\% |
| 28 | 1 | 5,267 | 0.00019 | 0.052\% | 0.044\% | 2.7 | 2.3 | 37\% | 43\% |
| 29 | 3 | 5,690 | 0.00053 | 0.056\% | 0.048\% | 3.2 | 2.7 | 94\% | 110\% |
| 30 | 0 | 6,286 | 0.00000 | 0.060\% | 0.052\% | 3.8 | 3.3 | 0\% | 0\% |
| 31 | 3 | 6,687 | 0.00045 | 0.064\% | 0.056\% | 4.3 | 3.7 | 70\% | 80\% |
| 32 | 4 | 7,068 | 0.00057 | 0.068\% | 0.060\% | 4.8 | 4.2 | 83\% | 94\% |
| 33 | 7 | 7,607 | 0.00092 | 0.072\% | 0.064\% | 5.5 | 4.9 | 128\% | 144\% |
| 34 | 2 | 8,065 | 0.00025 | 0.076\% | 0.068\% | 6.1 | 5.5 | 33\% | 36\% |
| 35 | 8 | 8,689 | 0.00092 | 0.080\% | 0.072\% | 7.0 | 6.3 | 115\% | 128\% |
| 36 | 2 | 9,302 | 0.00022 | 0.084\% | 0.076\% | 7.8 | 7.1 | 26\% | 28\% |
| 37 | 4 | 10,146 | 0.00039 | 0.088\% | 0.080\% | 8.9 | 8.1 | 45\% | 49\% |
| 38 | 17 | 11,054 | 0.00154 | 0.092\% | 0.084\% | 10.2 | 9.3 | 167\% | 183\% |
| 39 | 8 | 11,967 | 0.00067 | 0.096\% | 0.088\% | 11.5 | 10.5 | 70\% | 76\% |
| 40 | 7 | 13,020 | 0.00054 | 0.100\% | 0.092\% | 13.0 | 12.0 | 54\% | 58\% |
| 41 | 7 | 14,154 | 0.00049 | 0.110\% | 0.096\% | 15.6 | 13.6 | 45\% | 52\% |
| 42 | 19 | 15,365 | 0.00124 | 0.120\% | 0.100\% | 18.4 | 15.4 | 103\% | 124\% |
| 43 | 18 | 16,409 | 0.00110 | 0.130\% | 0.110\% | 21.3 | 18.0 | 84\% | 100\% |
| 44 | 22 | 17,340 | 0.00127 | 0.140\% | 0.120\% | 24.3 | 20.8 | 91\% | 106\% |
| 45 | 22 | 18,269 | 0.00120 | 0.150\% | 0.130\% | 27.4 | 23.7 | 80\% | 93\% |
| 46 | 26 | 19,218 | 0.00135 | 0.160\% | 0.140\% | 30.7 | 26.9 | 85\% | 97\% |
| 47 | 31 | 20,039 | 0.00155 | 0.170\% | 0.150\% | 34.1 | 30.1 | 91\% | 103\% |
| 48 | 33 | 20,611 | 0.00160 | 0.180\% | 0.160\% | 37.1 | 33.0 | 89\% | 100\% |
| 49 | 45 | 21,142 | 0.00213 | 0.190\% | 0.170\% | 40.2 | 35.9 | 112\% | 125\% |
| 50 | 34 | 21,398 | 0.00159 | 0.200\% | 0.180\% | 42.8 | 38.5 | 79\% | 88\% |
| 51 | 32 | 21,252 | 0.00151 | 0.220\% | 0.190\% | 46.8 | 40.4 | 68\% | 79\% |
| 52 | 39 | 21,143 | 0.00184 | 0.240\% | 0.200\% | 50.7 | 42.3 | 77\% | 92\% |
| 53 | 58 | 20,795 | 0.00279 | 0.260\% | 0.220\% | 54.1 | 45.7 | 107\% | 127\% |
| 54 | 49 | 20,482 | 0.00239 | 0.280\% | 0.240\% | 57.3 | 49.2 | 85\% | 100\% |
| 55 | 52 | 20,049 | 0.00259 | 0.300\% | 0.260\% | 60.1 | 52.1 | 86\% | 100\% |
| 56 | 46 | 18,939 | 0.00243 | 0.320\% | 0.280\% | 60.6 | 53.0 | 76\% | 87\% |
| 57 | 57 | 17,909 | 0.00318 | 0.340\% | 0.300\% | 60.9 | 53.7 | 94\% | 106\% |
| 58 | 49 | 16,637 | 0.00295 | 0.360\% | 0.320\% | 59.9 | 53.2 | 82\% | 92\% |
| 59 | 55 | 15,296 | 0.00360 | 0.380\% | 0.340\% | 58.1 | 52.0 | 95\% | 106\% |
| 60 | 50 | 14,174 | 0.00353 | 0.400\% | 0.360\% | 56.7 | 51.0 | 88\% | 98\% |
| 61 | 59 | 13,045 | 0.00452 | 0.420\% | 0.380\% | 54.8 | 49.6 | 108\% | 119\% |
| 62 | 54 | 11,690 | 0.00462 | 0.440\% | 0.400\% | 51.4 | 46.8 | 105\% | 115\% |
| 63 | 39 | 9,172 | 0.00425 | 0.460\% | 0.420\% | 42.2 | 38.5 | 92\% | 101\% |
| 64 | 29 | 7,443 | 0.00390 | 0.480\% | 0.440\% | 35.7 | 32.7 | 81\% | 89\% |
| 65 | 24 | 6,139 | 0.00391 | 0.500\% | 0.460\% | 30.7 | 28.2 | 78\% | 85\% |
| 66 | 20 | 4,918 | 0.00407 | 0.540\% | 0.480\% | 26.6 | 23.6 | 75\% | 85\% |
| 67 | 16 | 3,783 | 0.00423 | 0.580\% | 0.500\% | 21.9 | 18.9 | 73\% | 85\% |
| 68 | 19 | 3,005 | 0.00632 | 0.620\% | 0.540\% | 18.6 | 16.2 | 102\% | 117\% |
| 69 | 21 | 2,424 | 0.00866 | 0.660\% | 0.580\% | 16.0 | 14.1 | 131\% | 149\% |
| 70 | 15 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 71 | 11 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 72 | 13 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 73 | 12 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 74 | 10 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| Other | 39 | 0 | N/A | 0.000\% | N/A | 0 | 0 | 0\% | 0\% |
| Total | 1,194 | 560,301 |  |  |  | 1,251.3 | 1,104.1 | 95\% | 108\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

| Age | TABLE 8B |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 83 | 0.00000 | 0.030\% | 0.030\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 231 | 0.00000 | 0.030\% | 0.030\% | 0.1 | 0.1 | 0\% | 0\% |
| 22 | 0 | 530 | 0.00000 | 0.030\% | 0.030\% | 0.2 | 0.2 | 0\% | 0\% |
| 23 | 0 | 1,173 | 0.00000 | 0.030\% | 0.030\% | 0.4 | 0.4 | 0\% | 0\% |
| 24 | 1 | 2,229 | 0.00045 | 0.030\% | 0.030\% | 0.7 | 0.7 | 150\% | 150\% |
| 25 | 0 | 3,579 | 0.00000 | 0.030\% | 0.030\% | 1.1 | 1.1 | 0\% | 0\% |
| 26 | 2 | 4,956 | 0.00040 | 0.032\% | 0.030\% | 1.6 | 1.5 | 126\% | 135\% |
| 27 | 0 | 6,181 | 0.00000 | 0.034\% | 0.030\% | 2.1 | 1.9 | 0\% | 0\% |
| 28 | 2 | 7,528 | 0.00027 | 0.036\% | 0.032\% | 2.7 | 2.4 | 74\% | 83\% |
| 29 | 1 | 8,548 | 0.00012 | 0.038\% | 0.034\% | 3.2 | 2.9 | 31\% | 34\% |
| 30 | 0 | 9,274 | 0.00000 | 0.040\% | 0.036\% | 3.7 | 3.3 | 0\% | 0\% |
| 31 | 1 | 9,951 | 0.00010 | 0.042\% | 0.038\% | 4.2 | 3.8 | 24\% | 26\% |
| 32 | 4 | 10,555 | 0.00038 | 0.044\% | 0.040\% | 4.6 | 4.2 | 86\% | 95\% |
| 33 | 5 | 11,391 | 0.00044 | 0.046\% | 0.042\% | 5.2 | 4.8 | 95\% | 105\% |
| 34 | 2 | 12,099 | 0.00017 | 0.048\% | 0.044\% | 5.8 | 5.3 | 34\% | 38\% |
| 35 | 2 | 12,746 | 0.00016 | 0.050\% | 0.046\% | 6.4 | 5.9 | 31\% | 34\% |
| 36 | 5 | 13,504 | 0.00037 | 0.052\% | 0.048\% | 7.0 | 6.5 | 71\% | 77\% |
| 37 | 4 | 14,357 | 0.00028 | 0.054\% | 0.050\% | 7.8 | 7.2 | 52\% | 56\% |
| 38 | 6 | 15,294 | 0.00039 | 0.056\% | 0.052\% | 8.6 | 8.0 | 70\% | 75\% |
| 39 | 7 | 16,357 | 0.00043 | 0.058\% | 0.054\% | 9.5 | 8.8 | 74\% | 79\% |
| 40 | 14 | 17,494 | 0.00080 | 0.060\% | 0.056\% | 10.5 | 9.8 | 133\% | 143\% |
| 41 | 9 | 18,717 | 0.00048 | 0.068\% | 0.058\% | 12.7 | 10.9 | 71\% | 83\% |
| 42 | 5 | 19,847 | 0.00025 | 0.076\% | 0.060\% | 15.1 | 11.9 | 33\% | 42\% |
| 43 | 10 | 20,952 | 0.00048 | 0.084\% | 0.068\% | 17.6 | 14.2 | 57\% | 70\% |
| 44 | 15 | 21,869 | 0.00069 | 0.092\% | 0.076\% | 20.1 | 16.6 | 75\% | 90\% |
| 45 | 19 | 23,003 | 0.00083 | 0.100\% | 0.084\% | 23.0 | 19.3 | 83\% | 98\% |
| 46 | 19 | 23,772 | 0.00080 | 0.110\% | 0.092\% | 26.1 | 21.9 | 73\% | 87\% |
| 47 | 14 | 24,529 | 0.00057 | 0.120\% | 0.100\% | 29.4 | 24.5 | 48\% | 57\% |
| 48 | 16 | 25,059 | 0.00064 | 0.130\% | 0.110\% | 32.6 | 27.6 | 49\% | 58\% |
| 49 | 24 | 25,368 | 0.00095 | 0.140\% | 0.120\% | 35.5 | 30.4 | 68\% | 79\% |
| 50 | 30 | 25,384 | 0.00118 | 0.150\% | 0.130\% | 38.1 | 33.0 | 79\% | 91\% |
| 51 | 28 | 25,162 | 0.00111 | 0.160\% | 0.140\% | 40.3 | 35.2 | 70\% | 79\% |
| 52 | 39 | 25,122 | 0.00155 | 0.170\% | 0.150\% | 42.7 | 37.7 | 91\% | 103\% |
| 53 | 37 | 24,698 | 0.00150 | 0.180\% | 0.160\% | 44.5 | 39.5 | 83\% | 94\% |
| 54 | 42 | 24,256 | 0.00173 | 0.190\% | 0.170\% | 46.1 | 41.2 | 91\% | 102\% |
| 55 | 50 | 23,571 | 0.00212 | 0.200\% | 0.180\% | 47.1 | 42.4 | 106\% | 118\% |
| 56 | 33 | 22,241 | 0.00148 | 0.210\% | 0.190\% | 46.7 | 42.3 | 71\% | 78\% |
| 57 | 37 | 20,926 | 0.00177 | 0.220\% | 0.200\% | 46.0 | 41.9 | 80\% | 88\% |
| 58 | 35 | 19,497 | 0.00180 | 0.230\% | 0.210\% | 44.8 | 40.9 | 78\% | 85\% |
| 59 | 49 | 18,077 | 0.00271 | 0.240\% | 0.220\% | 43.4 | 39.8 | 113\% | 123\% |
| 60 | 36 | 16,763 | 0.00215 | 0.250\% | 0.230\% | 41.9 | 38.6 | 86\% | 93\% |
| 61 | 59 | 15,438 | 0.00382 | 0.260\% | 0.240\% | 40.1 | 37.1 | 147\% | 159\% |
| 62 | 53 | 13,927 | 0.00381 | 0.270\% | 0.250\% | 37.6 | 34.8 | 141\% | 152\% |
| 63 | 46 | 10,986 | 0.00419 | 0.280\% | 0.260\% | 30.8 | 28.6 | 150\% | 161\% |
| 64 | 27 | 8,669 | 0.00311 | 0.290\% | 0.270\% | 25.1 | 23.4 | 107\% | 115\% |
| 65 | 18 | 7,066 | 0.00255 | 0.300\% | 0.280\% | 21.2 | 19.8 | 85\% | 91\% |
| 66 | 14 | 5,526 | 0.00253 | 0.320\% | 0.290\% | 17.7 | 16.0 | 79\% | 87\% |
| 67 | 16 | 4,057 | 0.00394 | 0.340\% | 0.300\% | 13.8 | 12.2 | 116\% | 131\% |
| 68 | 20 | 3,124 | 0.00640 | 0.360\% | 0.320\% | 11.2 | 10.0 | 178\% | 200\% |
| 69 | 11 | 2,364 | 0.00465 | 0.380\% | 0.340\% | 9.0 | 8.0 | 122\% | 137\% |
| 70 | 7 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 71 | 16 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 72 | 5 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 73 | 8 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 74 | 4 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| Other | 28 | 0 | N/A | 0.000\% | N/A | 0 | 0 | 0\% | 0\% |
| Total | 935 | 698,030 |  |  |  | 985.6 | 878.2 | 95\% | 106\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Age | TABLE 8C |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 229 | 0.00000 | 0.036\% | 0.036\% | 0.1 | 0.1 | 0\% | 0\% |
| 21 | 0 | 662 | 0.00000 | 0.037\% | 0.037\% | 0.2 | 0.2 | 0\% | 0\% |
| 22 | 0 | 1,387 | 0.00000 | 0.036\% | 0.036\% | 0.5 | 0.5 | 0\% | 0\% |
| 23 | 0 | 2,667 | 0.00000 | 0.036\% | 0.036\% | 0.9 | 0.9 | 0\% | 0\% |
| 24 | 1 | 4,603 | 0.00022 | 0.035\% | 0.035\% | 1.6 | 1.6 | 62\% | 62\% |
| 25 | 2 | 6,776 | 0.00030 | 0.035\% | 0.035\% | 2.4 | 2.4 | 85\% | 85\% |
| 26 | 3 | 8,952 | 0.00034 | 0.037\% | 0.034\% | 3.3 | 3.1 | 90\% | 97\% |
| 27 | 0 | 10,899 | 0.00000 | 0.040\% | 0.034\% | 4.4 | 3.7 | 0\% | 0\% |
| 28 | 3 | 12,795 | 0.00023 | 0.043\% | 0.037\% | 5.4 | 4.7 | 55\% | 63\% |
| 29 | 4 | 14,238 | 0.00028 | 0.045\% | 0.040\% | 6.4 | 5.6 | 62\% | 71\% |
| 30 | 0 | 15,560 | 0.00000 | 0.048\% | 0.042\% | 7.5 | 6.6 | 0\% | 0\% |
| 31 | 4 | 16,638 | 0.00024 | 0.051\% | 0.045\% | 8.5 | 7.5 | 47\% | 53\% |
| 32 | 8 | 17,623 | 0.00045 | 0.054\% | 0.048\% | 9.5 | 8.5 | 85\% | 95\% |
| 33 | 12 | 18,998 | 0.00063 | 0.056\% | 0.051\% | 10.7 | 9.7 | 112\% | 124\% |
| 34 | 4 | 20,164 | 0.00020 | 0.059\% | 0.054\% | 11.9 | 10.8 | 34\% | 37\% |
| 35 | 10 | 21,435 | 0.00047 | 0.062\% | 0.057\% | 13.3 | 12.1 | 75\% | 83\% |
| 36 | 7 | 22,806 | 0.00031 | 0.065\% | 0.059\% | 14.8 | 13.6 | 47\% | 52\% |
| 37 | 8 | 24,503 | 0.00033 | 0.068\% | 0.062\% | 16.7 | 15.3 | 48\% | 52\% |
| 38 | 23 | 26,348 | 0.00087 | 0.071\% | 0.065\% | 18.7 | 17.2 | 123\% | 133\% |
| 39 | 15 | 28,324 | 0.00053 | 0.074\% | 0.068\% | 21.0 | 19.4 | 72\% | 77\% |
| 40 | 21 | 30,514 | 0.00069 | 0.077\% | 0.071\% | 23.5 | 21.8 | 89\% | 96\% |
| 41 | 16 | 32,871 | 0.00049 | 0.086\% | 0.074\% | 28.3 | 24.4 | 57\% | 65\% |
| 42 | 24 | 35,212 | 0.00068 | 0.095\% | 0.077\% | 33.5 | 27.3 | 72\% | 88\% |
| 43 | 28 | 37,361 | 0.00075 | 0.104\% | 0.086\% | 38.9 | 32.3 | 72\% | 87\% |
| 44 | 37 | 39,209 | 0.00094 | 0.113\% | 0.095\% | 44.4 | 37.4 | 83\% | 99\% |
| 45 | 41 | 41,272 | 0.00099 | 0.122\% | 0.104\% | 50.4 | 43.1 | 81\% | 95\% |
| 46 | 45 | 42,990 | 0.00105 | 0.132\% | 0.113\% | 56.9 | 48.8 | 79\% | 92\% |
| 47 | 45 | 44,568 | 0.00101 | 0.142\% | 0.122\% | 63.5 | 54.6 | 71\% | 82\% |
| 48 | 49 | 45,670 | 0.00107 | 0.153\% | 0.133\% | 69.7 | 60.5 | 70\% | 81\% |
| 49 | 69 | 46,510 | 0.00148 | 0.163\% | 0.143\% | 75.7 | 66.4 | 91\% | 104\% |
| 50 | 64 | 46,782 | 0.00137 | 0.173\% | 0.153\% | 80.9 | 71.5 | 79\% | 89\% |
| 51 | 60 | 46,414 | 0.00129 | 0.187\% | 0.163\% | 87.0 | 75.6 | 69\% | 79\% |
| 52 | 78 | 46,265 | 0.00169 | 0.202\% | 0.173\% | 93.5 | 80.0 | 83\% | 98\% |
| 53 | 95 | 45,493 | 0.00209 | 0.217\% | 0.187\% | 98.5 | 85.3 | 96\% | 111\% |
| 54 | 91 | 44,738 | 0.00203 | 0.231\% | 0.202\% | 103.4 | 90.4 | 88\% | 101\% |
| 55 | 102 | 43,620 | 0.00234 | 0.246\% | 0.217\% | 107.3 | 94.6 | 95\% | 108\% |
| 56 | 79 | 41,180 | 0.00192 | 0.261\% | 0.231\% | 107.3 | 95.3 | 74\% | 83\% |
| 57 | 94 | 38,835 | 0.00242 | 0.275\% | 0.246\% | 106.9 | 95.6 | 88\% | 98\% |
| 58 | 84 | 36,134 | 0.00232 | 0.290\% | 0.261\% | 104.7 | 94.2 | 80\% | 89\% |
| 59 | 104 | 33,373 | 0.00312 | 0.304\% | 0.275\% | 101.5 | 91.8 | 102\% | 113\% |
| 60 | 86 | 30,937 | 0.00278 | 0.319\% | 0.290\% | 98.6 | 89.6 | 87\% | 96\% |
| 61 | 118 | 28,483 | 0.00414 | 0.333\% | 0.304\% | 94.9 | 86.6 | 124\% | 136\% |
| 62 | 107 | 25,617 | 0.00418 | 0.348\% | 0.318\% | 89.0 | 81.6 | 120\% | 131\% |
| 63 | 85 | 20,158 | 0.00422 | 0.362\% | 0.333\% | 73.0 | 67.1 | 117\% | 127\% |
| 64 | 56 | 16,112 | 0.00348 | 0.378\% | 0.349\% | 60.9 | 56.2 | 92\% | 100\% |
| 65 | 42 | 13,205 | 0.00318 | 0.393\% | 0.364\% | 51.9 | 48.0 | 81\% | 87\% |
| 66 | 34 | 10,444 | 0.00326 | 0.424\% | 0.379\% | 44.2 | 39.6 | 77\% | 86\% |
| 67 | 32 | 7,840 | 0.00408 | 0.456\% | 0.397\% | 35.7 | 31.1 | 90\% | 103\% |
| 68 | 39 | 6,129 | 0.00636 | 0.487\% | 0.428\% | 29.9 | 26.2 | 131\% | 149\% |
| 69 | 32 | 4,788 | 0.00668 | 0.522\% | 0.462\% | 25.0 | 22.1 | 128\% | 145\% |
| 70 | 22 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 71 | 27 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 72 | 18 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 73 | 20 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 74 | 14 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Other | 67 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Total | 2,129 | 1,258,331 |  |  |  | 2,237.0 | 1,982.4 | 95\% | 107\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL
ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS
MEN

| Age | TABLE 8A GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed $(8) /(3)$ | Expected | Proposed | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 5,302 | 0.00000 | 0.040\% | 0.040\% | 2.1 | 2.1 | 0\% | 0\% |
| 25-29 | 7 | 22,868 | 0.00031 | 0.049\% | 0.043\% | 11.2 | 9.8 | 62\% | 71\% |
| 30-34 | 16 | 35,713 | 0.00045 | 0.069\% | 0.061\% | 24.5 | 21.6 | 65\% | 74\% |
| 35-39 | 39 | 51,158 | 0.00076 | 0.089\% | 0.081\% | 45.4 | 41.3 | 86\% | 95\% |
| 40-44 | 73 | 76,288 | 0.00096 | 0.121\% | 0.105\% | 92.6 | 79.8 | 79\% | 91\% |
| 45-49 | 157 | 99,279 | 0.00158 | 0.171\% | 0.151\% | 169.5 | 149.6 | 93\% | 105\% |
| 50-54 | 212 | 105,070 | 0.00202 | 0.240\% | 0.206\% | 251.7 | 216.1 | 84\% | 98\% |
| 55-59 | 259 | 88,830 | 0.00292 | 0.337\% | 0.297\% | 299.7 | 264.1 | 86\% | 98\% |
| 60-64 | 231 | 55,524 | 0.00416 | 0.434\% | 0.394\% | 240.8 | 218.6 | 96\% | 106\% |
| 65-69 | 100 | 20,269 | 0.00493 | 0.562\% | 0.499\% | 113.8 | 101.0 | 88\% | 99\% |
| 70-74 | 61 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 39 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 1,194 | 560,301 |  |  |  | 1,251.3 | 1,104.1 | 95\% | 108\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL
ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS
WOMEN


NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL
ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Age | TABLE 8C GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 1 | 9,548 | 0.00010 | 0.036\% | 0.036\% | 3.4 | 3.4 | 29\% | 29\% |
| 25-29 | 12 | 53,660 | 0.00022 | 0.041\% | 0.036\% | 21.9 | 19.5 | 55\% | 61\% |
| 30-34 | 28 | 88,983 | 0.00031 | 0.054\% | 0.048\% | 48.0 | 43.1 | 58\% | 65\% |
| 35-39 | 63 | 123,416 | 0.00051 | 0.069\% | 0.063\% | 84.6 | 77.6 | 75\% | 81\% |
| 40-44 | 126 | 175,167 | 0.00072 | 0.096\% | 0.082\% | 168.7 | 143.2 | 75\% | 88\% |
| 45-49 | 249 | 221,010 | 0.00113 | 0.143\% | 0.124\% | 316.2 | 273.4 | 79\% | 91\% |
| 50-54 | 388 | 229,692 | 0.00169 | 0.202\% | 0.175\% | 463.3 | 402.7 | 84\% | 96\% |
| 55-59 | 463 | 193,142 | 0.00240 | 0.273\% | 0.244\% | 527.8 | 471.4 | 88\% | 98\% |
| 60-64 | 452 | 121,307 | 0.00373 | 0.343\% | 0.314\% | 416.4 | 381.0 | 109\% | 119\% |
| 65-69 | 179 | 42,406 | 0.00422 | 0.440\% | 0.394\% | 186.7 | 167.1 | 96\% | 107\% |
| 70-74 | 101 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 67 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 2,129 | 1,258,331 |  |  |  | 2,237.0 | 1,982.4 | 95\% | 107\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL
ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS
MEN AND WOMEN

| Plan <br> Year | TABLE 8D |  |  | 10-YEAR PE | Mortality Rate |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending June 30, | Life Years Exposed | Actual Deaths | Expected Deaths | Actual / <br> Expected | Actual (3) / (2) | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 119,180 | 342 | 196.6 | 174\% | 0.287\% | 0.165\% |
| 2005 | 120,147 | 242 | 202.0 | 120\% | 0.201\% | 0.168\% |
| 2006 | 122,336 | 246 | 212.1 | 116\% | 0.201\% | 0.173\% |
| 2007 | 124,083 | 134 | 218.9 | 61\% | 0.108\% | 0.176\% |
| 2008 | 125,340 | 107 | 223.5 | 48\% | 0.085\% | 0.178\% |
| 2009 | 127,376 | 291 | 230.0 | 127\% | 0.228\% | 0.181\% |
| 2010 | 128,850 | 268 | 235.1 | 114\% | 0.208\% | 0.182\% |
| 2011 | 129,239 | 250 | 238.1 | 105\% | 0.193\% | 0.184\% |
| 2012 | 128,229 | 152 | 236.7 | 64\% | 0.119\% | 0.185\% |
| 2013 | 133,596 | 97 | 244.2 | 40\% | 0.073\% | 0.183\% |
| Total | 1,258,376 | 2,129 | 2237.0 | 95\% | 0.169\% | 0.178\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN

|  | TABLE 9A |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.20\% | 0.20\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.20\% | 0.20\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.20\% | 0.20\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 0 | N/A | 0.20\% | 0.20\% | 0 | 0 | 0\% | 0\% |
| 24 | 0 | 0 | N/A | 0.20\% | 0.20\% | 0 | 0 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.20\% | 0.20\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 1 | 0.0000 | 0.20\% | 0.20\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 2 | 0.0000 | 0.20\% | 0.20\% | 0.0 | 0.0 | 0\% | 0\% |
| 28 | 1 | 14 | 0.0714 | 0.20\% | 0.20\% | 0.0 | 0.0 | 3571\% | 3571\% |
| 29 | 0 | 37 | 0.0000 | 0.20\% | 0.20\% | 0.1 | 0.1 | 0\% | 0\% |
| 30 | 0 | 79 | 0.0000 | 0.20\% | 0.20\% | 0.2 | 0.2 | 0\% | 0\% |
| 31 | 0 | 175 | 0.0000 | 0.22\% | 0.22\% | 0.4 | 0.4 | 0\% | 0\% |
| 32 | 0 | 275 | 0.0000 | 0.24\% | 0.24\% | 0.7 | 0.7 | 0\% | 0\% |
| 33 | 1 | 397 | 0.0025 | 0.26\% | 0.26\% | 1.0 | 1.0 | 97\% | 97\% |
| 34 | 0 | 509 | 0.0000 | 0.28\% | 0.28\% | 1.4 | 1.4 | 0\% | 0\% |
| 35 | 4 | 650 | 0.0062 | 0.30\% | 0.30\% | 2.0 | 2.0 | 205\% | 205\% |
| 36 | 1 | 813 | 0.0012 | 0.32\% | 0.32\% | 2.6 | 2.6 | 38\% | 38\% |
| 37 | 0 | 1,074 | 0.0000 | 0.34\% | 0.34\% | 3.7 | 3.7 | 0\% | 0\% |
| 38 | 5 | 1,350 | 0.0037 | 0.36\% | 0.36\% | 4.9 | 4.9 | 103\% | 103\% |
| 39 | 9 | 1,733 | 0.0052 | 0.38\% | 0.38\% | 6.6 | 6.6 | 137\% | 137\% |
| 40 | 4 | 2,138 | 0.0019 | 0.40\% | 0.40\% | 8.6 | 8.6 | 47\% | 47\% |
| 41 | 7 | 2,472 | 0.0028 | 0.42\% | 0.42\% | 10.4 | 10.4 | 67\% | 67\% |
| 42 | 10 | 2,927 | 0.0034 | 0.44\% | 0.44\% | 12.9 | 12.9 | 78\% | 78\% |
| 43 | 15 | 3,332 | 0.0045 | 0.46\% | 0.46\% | 15.3 | 15.3 | 98\% | 98\% |
| 44 | 11 | 3,835 | 0.0029 | 0.48\% | 0.48\% | 18.4 | 18.4 | 60\% | 60\% |
| 45 | 16 | 4,393 | 0.0036 | 0.50\% | 0.50\% | 22.0 | 22.0 | 73\% | 73\% |
| 46 | 15 | 4,848 | 0.0031 | 0.52\% | 0.52\% | 25.2 | 25.2 | 60\% | 60\% |
| 47 | 21 | 5,304 | 0.0040 | 0.54\% | 0.54\% | 28.6 | 28.6 | 73\% | 73\% |
| 48 | 29 | 5,643 | 0.0051 | 0.56\% | 0.56\% | 31.6 | 31.6 | 92\% | 92\% |
| 49 | 31 | 5,851 | 0.0053 | 0.58\% | 0.58\% | 33.9 | 33.9 | 91\% | 91\% |
| 50 | 30 | 6,089 | 0.0049 | 0.60\% | 0.60\% | 36.5 | 36.5 | 82\% | 82\% |
| 51 | 34 | 6,163 | 0.0055 | 0.62\% | 0.62\% | 38.2 | 38.2 | 89\% | 89\% |
| 52 | 29 | 6,199 | 0.0047 | 0.64\% | 0.64\% | 39.7 | 39.7 | 73\% | 73\% |
| 53 | 38 | 6,370 | 0.0060 | 0.66\% | 0.66\% | 42.0 | 42.0 | 90\% | 90\% |
| 54 | 52 | 6,386 | 0.0081 | 0.68\% | 0.68\% | 43.4 | 43.4 | 120\% | 120\% |
| 55 | 47 | 6,277 | 0.0075 | 0.70\% | 0.70\% | 43.9 | 43.9 | 107\% | 107\% |
| 56 | 35 | 5,983 | 0.0058 | 0.70\% | 0.70\% | 41.9 | 41.9 | 84\% | 84\% |
| 57 | 33 | 5,663 | 0.0058 | 0.70\% | 0.70\% | 39.6 | 39.6 | 83\% | 83\% |
| 58 | 43 | 5,401 | 0.0080 | 0.70\% | 0.70\% | 37.8 | 37.8 | 114\% | 114\% |
| 59 | 38 | 5,126 | 0.0074 | 0.70\% | 0.70\% | 35.9 | 35.9 | 106\% | 106\% |
| 60 | 37 | 4,788 | 0.0077 | 0.70\% | 0.70\% | 33.5 | 33.5 | 110\% | 110\% |
| 61 | 28 | 4,490 | 0.0062 | 0.70\% | 0.70\% | 31.4 | 31.4 | 89\% | 89\% |
| 62 | 12 | 4,041 | 0.0030 | 0.70\% | 0.70\% | 28.3 | 28.3 | 42\% | 42\% |
| 63 | 12 | 3,048 | 0.0039 | 0.70\% | 0.70\% | 21.3 | 21.3 | 56\% | 56\% |
| 64 | 10 | 2,435 | 0.0041 | 0.70\% | 0.70\% | 17.0 | 17.0 | 59\% | 59\% |
| 65 | 4 | 1,987 | 0.0020 | 0.70\% | 0.70\% | 13.9 | 13.9 | 29\% | 29\% |
| 66 | 6 | 1,679 | 0.0036 | 0.70\% | 0.70\% | 11.8 | 11.8 | 51\% | 51\% |
| 67 | 4 | 1,315 | 0.0030 | 0.70\% | 0.70\% | 9.2 | 9.2 | 43\% | 43\% |
| 68 | 4 | 1,007 | 0.0040 | 0.70\% | 0.70\% | 7.0 | 7.0 | 57\% | 57\% |
| 69 | 2 | 807 | 0.0025 | 0.70\% | 0.70\% | 5.6 | 5.6 | 35\% | 35\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 678 | 133,106 |  |  |  | 808.5 | 808.5 | 84\% | 84\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

|  | TABLE 9B |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times$ (5) | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.20\% | 0.20\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.20\% | 0.20\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.20\% | 0.20\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 0 | N/A | 0.20\% | 0.20\% | 0 | 0 | 0\% | 0\% |
| 24 | 0 | 0 | N/A | 0.20\% | 0.20\% | 0 | 0 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.20\% | 0.20\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 1 | 0.0000 | 0.20\% | 0.20\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 1 | 0.0000 | 0.20\% | 0.20\% | 0.0 | 0.0 | 0\% | 0\% |
| 28 | 0 | 6 | 0.0000 | 0.20\% | 0.20\% | 0.0 | 0.0 | 0\% | 0\% |
| 29 | 0 | 19 | 0.0000 | 0.20\% | 0.20\% | 0.0 | 0.0 | 0\% | 0\% |
| 30 | 0 | 61 | 0.0000 | 0.20\% | 0.20\% | 0.1 | 0.1 | 0\% | 0\% |
| 31 | 1 | 117 | 0.0085 | 0.20\% | 0.20\% | 0.2 | 0.2 | 427\% | 427\% |
| 32 | 1 | 231 | 0.0043 | 0.20\% | 0.20\% | 0.5 | 0.5 | 216\% | 216\% |
| 33 | 2 | 354 | 0.0056 | 0.20\% | 0.20\% | 0.7 | 0.7 | 282\% | 282\% |
| 34 | 0 | 500 | 0.0000 | 0.20\% | 0.20\% | 1.0 | 1.0 | 0\% | 0\% |
| 35 | 0 | 685 | 0.0000 | 0.20\% | 0.20\% | 1.4 | 1.4 | 0\% | 0\% |
| 36 | 1 | 844 | 0.0012 | 0.21\% | 0.21\% | 1.8 | 1.8 | 56\% | 56\% |
| 37 | 1 | 1,172 | 0.0009 | 0.22\% | 0.22\% | 2.6 | 2.6 | 39\% | 39\% |
| 38 | 2 | 1,468 | 0.0014 | 0.23\% | 0.23\% | 3.4 | 3.4 | 59\% | 59\% |
| 39 | 2 | 1,861 | 0.0011 | 0.24\% | 0.24\% | 4.5 | 4.5 | 45\% | 45\% |
| 40 | 4 | 2,388 | 0.0017 | 0.25\% | 0.25\% | 6.0 | 6.0 | 67\% | 67\% |
| 41 | 7 | 2,823 | 0.0025 | 0.26\% | 0.26\% | 7.3 | 7.3 | 95\% | 95\% |
| 42 | 6 | 3,383 | 0.0018 | 0.27\% | 0.27\% | 9.1 | 9.1 | 66\% | 66\% |
| 43 | 12 | 3,962 | 0.0030 | 0.28\% | 0.28\% | 11.1 | 11.1 | 108\% | 108\% |
| 44 | 13 | 4,470 | 0.0029 | 0.29\% | 0.29\% | 13.0 | 13.0 | 100\% | 100\% |
| 45 | 12 | 5,022 | 0.0024 | 0.30\% | 0.30\% | 15.1 | 15.1 | 80\% | 80\% |
| 46 | 19 | 5,455 | 0.0035 | 0.34\% | 0.34\% | 18.5 | 18.5 | 102\% | 102\% |
| 47 | 23 | 5,905 | 0.0039 | 0.38\% | 0.38\% | 22.4 | 22.4 | 103\% | 103\% |
| 48 | 27 | 6,284 | 0.0043 | 0.42\% | 0.42\% | 26.4 | 26.4 | 102\% | 102\% |
| 49 | 30 | 6,620 | 0.0045 | 0.46\% | 0.46\% | 30.5 | 30.5 | 99\% | 99\% |
| 50 | 24 | 6,802 | 0.0035 | 0.50\% | 0.50\% | 34.0 | 34.0 | 71\% | 71\% |
| 51 | 38 | 7,026 | 0.0054 | 0.54\% | 0.54\% | 37.9 | 37.9 | 100\% | 100\% |
| 52 | 37 | 7,109 | 0.0052 | 0.58\% | 0.58\% | 41.2 | 41.2 | 90\% | 90\% |
| 53 | 51 | 7,090 | 0.0072 | 0.62\% | 0.62\% | 44.0 | 44.0 | 116\% | 116\% |
| 54 | 54 | 7,048 | 0.0077 | 0.66\% | 0.66\% | 46.5 | 46.5 | 116\% | 116\% |
| 55 | 52 | 6,849 | 0.0076 | 0.70\% | 0.70\% | 47.9 | 47.9 | 108\% | 108\% |
| 56 | 40 | 6,525 | 0.0061 | 0.70\% | 0.70\% | 45.7 | 45.7 | 88\% | 88\% |
| 57 | 38 | 6,194 | 0.0061 | 0.70\% | 0.70\% | 43.4 | 43.4 | 88\% | 88\% |
| 58 | 50 | 5,944 | 0.0084 | 0.70\% | 0.70\% | 41.6 | 41.6 | 120\% | 120\% |
| 59 | 43 | 5,682 | 0.0076 | 0.70\% | 0.70\% | 39.8 | 39.8 | 108\% | 108\% |
| 60 | 40 | 5,397 | 0.0074 | 0.70\% | 0.70\% | 37.8 | 37.8 | 106\% | 106\% |
| 61 | 34 | 5,223 | 0.0065 | 0.70\% | 0.70\% | 36.6 | 36.6 | 93\% | 93\% |
| 62 | 14 | 4,756 | 0.0029 | 0.70\% | 0.70\% | 33.3 | 33.3 | 42\% | 42\% |
| 63 | 9 | 3,738 | 0.0024 | 0.70\% | 0.70\% | 26.2 | 26.2 | 34\% | 34\% |
| 64 | 11 | 2,887 | 0.0038 | 0.70\% | 0.70\% | 20.2 | 20.2 | 54\% | 54\% |
| 65 | 5 | 2,281 | 0.0022 | 0.70\% | 0.70\% | 16.0 | 16.0 | 31\% | 31\% |
| 66 | 6 | 1,857 | 0.0032 | 0.70\% | 0.70\% | 13.0 | 13.0 | 46\% | 46\% |
| 67 | 5 | 1,403 | 0.0036 | 0.70\% | 0.70\% | 9.8 | 9.8 | 51\% | 51\% |
| 68 | 0 | 1,080 | 0.0000 | 0.70\% | 0.70\% | 7.6 | 7.6 | 0\% | 0\% |
| 69 | 1 | 861 | 0.0012 | 0.70\% | 0.70\% | 6.0 | 6.0 | 17\% | 17\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 715 | 149,384 |  |  |  | 803.9 | 803.9 | 89\% | 89\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL

## ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS

 MEN AND WOMEN|  | TABLE 9C |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2)/(3) } \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 24 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 2 | 0.0000 | 0.20\% | 0.20\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 3 | 0.0000 | 0.20\% | 0.20\% | 0.0 | 0.0 | 0\% | 0\% |
| 28 | 1 | 20 | 0.0500 | 0.20\% | 0.20\% | 0.0 | 0.0 | 2500\% | 2500\% |
| 29 | 0 | 56 | 0.0000 | 0.20\% | 0.20\% | 0.1 | 0.1 | 0\% | 0\% |
| 30 | 0 | 140 | 0.0000 | 0.20\% | 0.20\% | 0.3 | 0.3 | 0\% | 0\% |
| 31 | 1 | 292 | 0.0034 | 0.21\% | 0.21\% | 0.6 | 0.6 | 162\% | 162\% |
| 32 | 1 | 506 | 0.0020 | 0.22\% | 0.22\% | 1.1 | 1.1 | 89\% | 89\% |
| 33 | 3 | 751 | 0.0040 | 0.23\% | 0.23\% | 1.7 | 1.7 | 172\% | 172\% |
| 34 | 0 | 1,009 | 0.0000 | 0.24\% | 0.24\% | 2.4 | 2.4 | 0\% | 0\% |
| 35 | 4 | 1,335 | 0.0030 | 0.25\% | 0.25\% | 3.3 | 3.3 | 120\% | 120\% |
| 36 | 2 | 1,657 | 0.0012 | 0.26\% | 0.26\% | 4.4 | 4.4 | 46\% | 46\% |
| 37 | 1 | 2,246 | 0.0004 | 0.28\% | 0.28\% | 6.2 | 6.2 | 16\% | 16\% |
| 38 | 7 | 2,818 | 0.0025 | 0.29\% | 0.29\% | 8.2 | 8.2 | 85\% | 85\% |
| 39 | 11 | 3,594 | 0.0031 | 0.31\% | 0.31\% | 11.1 | 11.1 | 100\% | 100\% |
| 40 | 8 | 4,526 | 0.0018 | 0.32\% | 0.32\% | 14.5 | 14.5 | 55\% | 55\% |
| 41 | 14 | 5,295 | 0.0026 | 0.33\% | 0.33\% | 17.7 | 17.7 | 79\% | 79\% |
| 42 | 16 | 6,310 | 0.0025 | 0.35\% | 0.35\% | 22.0 | 22.0 | 73\% | 73\% |
| 43 | 27 | 7,294 | 0.0037 | 0.36\% | 0.36\% | 26.4 | 26.4 | 102\% | 102\% |
| 44 | 24 | 8,305 | 0.0029 | 0.38\% | 0.38\% | 31.4 | 31.4 | 77\% | 77\% |
| 45 | 28 | 9,415 | 0.0030 | 0.39\% | 0.39\% | 37.0 | 37.0 | 76\% | 76\% |
| 46 | 34 | 10,303 | 0.0033 | 0.42\% | 0.42\% | 43.8 | 43.8 | 78\% | 78\% |
| 47 | 44 | 11,209 | 0.0039 | 0.46\% | 0.46\% | 51.1 | 51.1 | 86\% | 86\% |
| 48 | 56 | 11,927 | 0.0047 | 0.49\% | 0.49\% | 58.0 | 58.0 | 97\% | 97\% |
| 49 | 61 | 12,471 | 0.0049 | 0.52\% | 0.52\% | 64.4 | 64.4 | 95\% | 95\% |
| 50 | 54 | 12,891 | 0.0042 | 0.55\% | 0.55\% | 70.5 | 70.5 | 77\% | 77\% |
| 51 | 72 | 13,189 | 0.0055 | 0.58\% | 0.58\% | 76.2 | 76.2 | 95\% | 95\% |
| 52 | 66 | 13,308 | 0.0050 | 0.61\% | 0.61\% | 80.9 | 80.9 | 82\% | 82\% |
| 53 | 89 | 13,460 | 0.0066 | 0.64\% | 0.64\% | 86.0 | 86.0 | 103\% | 103\% |
| 54 | 106 | 13,434 | 0.0079 | 0.67\% | 0.67\% | 89.9 | 89.9 | 118\% | 118\% |
| 55 | 99 | 13,126 | 0.0075 | 0.70\% | 0.70\% | 91.9 | 91.9 | 108\% | 108\% |
| 56 | 75 | 12,508 | 0.0060 | 0.70\% | 0.70\% | 87.6 | 87.6 | 86\% | 86\% |
| 57 | 71 | 11,857 | 0.0060 | 0.70\% | 0.70\% | 83.0 | 83.0 | 86\% | 86\% |
| 58 | 93 | 11,345 | 0.0082 | 0.70\% | 0.70\% | 79.4 | 79.4 | 117\% | 117\% |
| 59 | 81 | 10,808 | 0.0075 | 0.70\% | 0.70\% | 75.7 | 75.7 | 107\% | 107\% |
| 60 | 77 | 10,185 | 0.0076 | 0.70\% | 0.70\% | 71.3 | 71.3 | 108\% | 108\% |
| 61 | 62 | 9,713 | 0.0064 | 0.70\% | 0.70\% | 68.0 | 68.0 | 91\% | 91\% |
| 62 | 26 | 8,797 | 0.0030 | 0.70\% | 0.70\% | 61.6 | 61.6 | 42\% | 42\% |
| 63 | 21 | 6,786 | 0.0031 | 0.70\% | 0.70\% | 47.5 | 47.5 | 44\% | 44\% |
| 64 | 21 | 5,322 | 0.0039 | 0.70\% | 0.70\% | 37.3 | 37.3 | 56\% | 56\% |
| 65 | 9 | 4,268 | 0.0021 | 0.70\% | 0.70\% | 29.9 | 29.9 | 30\% | 30\% |
| 66 | 12 | 3,536 | 0.0034 | 0.70\% | 0.70\% | 24.8 | 24.8 | 48\% | 48\% |
| 67 | 9 | 2,718 | 0.0033 | 0.70\% | 0.70\% | 19.0 | 19.0 | 47\% | 47\% |
| 68 | 4 | 2,087 | 0.0019 | 0.70\% | 0.70\% | 14.6 | 14.6 | 27\% | 27\% |
| 69 | 3 | 1,668 | 0.0018 | 0.70\% | 0.70\% | 11.7 | 11.7 | 26\% | 26\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 1,393 | 282,490 |  |  |  | 1,612.5 | 1,612.5 | 86\% | 86\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL

## ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS

 MEN|  | TABLE 9A GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 25-29 | 1 | 54 | 0.0185 | 0.20\% | 0.20\% | 0.1 | 0.1 | 926\% | 926\% |
| 30-34 | 1 | 1,435 | 0.0007 | 0.26\% | 0.26\% | 3.7 | 3.7 | 27\% | 27\% |
| 35-39 | 19 | 5,620 | 0.0034 | 0.35\% | 0.35\% | 19.6 | 19.6 | 97\% | 97\% |
| 40-44 | 47 | 14,704 | 0.0032 | 0.45\% | 0.45\% | 65.5 | 65.5 | 72\% | 72\% |
| 45-49 | 112 | 26,039 | 0.0043 | 0.54\% | 0.54\% | 141.4 | 141.4 | 79\% | 79\% |
| 50-54 | 183 | 31,207 | 0.0059 | 0.64\% | 0.64\% | 199.9 | 199.9 | 92\% | 92\% |
| 55-59 | 196 | 28,450 | 0.0069 | 0.70\% | 0.70\% | 199.2 | 199.2 | 98\% | 98\% |
| 60-64 | 99 | 18,802 | 0.0053 | 0.70\% | 0.70\% | 131.6 | 131.6 | 75\% | 75\% |
| 65-69 | 20 | 6,795 | 0.0029 | 0.70\% | 0.70\% | 47.6 | 47.6 | 42\% | 42\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 678 | 133,106 |  |  |  | 808.5 | 808.5 | 84\% | 84\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL

## ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS

WOMEN

| Age | TABLE 9B GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2)/(3) } \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 25-29 | 0 | 27 | 0.0000 | 0.20\% | 0.20\% | 0.1 | 0.1 | 0\% | 0\% |
| 30-34 | 4 | 1,263 | 0.0032 | 0.20\% | 0.20\% | 2.5 | 2.5 | 158\% | 158\% |
| 35-39 | 6 | 6,030 | 0.0010 | 0.22\% | 0.22\% | 13.6 | 13.6 | 44\% | 44\% |
| 40-44 | 42 | 17,026 | 0.0025 | 0.27\% | 0.27\% | 46.5 | 46.5 | 90\% | 90\% |
| 45-49 | 111 | 29,286 | 0.0038 | 0.39\% | 0.39\% | 112.9 | 112.9 | 98\% | 98\% |
| 50-54 | 204 | 35,075 | 0.0058 | 0.58\% | 0.58\% | 203.7 | 203.7 | 100\% | 100\% |
| 55-59 | 223 | 31,194 | 0.0071 | 0.70\% | 0.70\% | 218.4 | 218.4 | 102\% | 102\% |
| 60-64 | 108 | 22,001 | 0.0049 | 0.70\% | 0.70\% | 154.0 | 154.0 | 70\% | 70\% |
| 65-69 | 17 | 7,482 | 0.0023 | 0.70\% | 0.70\% | 52.4 | 52.4 | 32\% | 32\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 715 | 149,384 |  |  |  | 803.9 | 803.9 | 89\% | 89\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL

## ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS

 MEN AND WOMEN| Age | TABLE 9C GROUPED |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2011$\begin{aligned} & \text { Expected Disabilities }\end{aligned} \quad$ Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \begin{array}{c} \text { (2) } /(\mathbf{3}) \\ \hline \end{array} \end{aligned}$ | Expected $(7) /(3)$ | $\begin{gathered} \text { Proposed } \\ (8) /(3) \\ \hline \end{gathered}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 25-29 | 1 | 81 | 0.0123 | 0.20\% | 0.20\% | 0.2 | 0.2 | 617\% | 617\% |
| 30-34 | 5 | 2,698 | 0.0019 | 0.23\% | 0.23\% | 6.2 | 6.2 | 81\% | 81\% |
| 35-39 | 25 | 11,650 | 0.0021 | 0.29\% | 0.29\% | 33.2 | 33.2 | 75\% | 75\% |
| 40-44 | 89 | 31,730 | 0.0028 | 0.35\% | 0.35\% | 112.0 | 112.0 | 79\% | 79\% |
| 45-49 | 223 | 55,325 | 0.0040 | 0.46\% | 0.46\% | 254.2 | 254.2 | 88\% | 88\% |
| 50-54 | 387 | 66,282 | 0.0058 | 0.61\% | 0.61\% | 403.5 | 403.5 | 96\% | 96\% |
| 55-59 | 419 | 59,644 | 0.0070 | 0.70\% | 0.70\% | 417.5 | 417.5 | 100\% | 100\% |
| 60-64 | 207 | 40,803 | 0.0051 | 0.70\% | 0.70\% | 285.6 | 285.6 | 72\% | 72\% |
| 65-69 | 37 | 14,277 | 0.0026 | 0.70\% | 0.70\% | 99.9 | 99.9 | 37\% | 37\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 1,393 | 282,490 |  |  |  | 1,612.5 | 1,612.5 | 86\% | 86\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN

|  | TABLE 9A |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.20\% | 0.20\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.20\% | 0.20\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.20\% | 0.20\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 0 | N/A | 0.20\% | 0.20\% | 0 | 0 | 0\% | 0\% |
| 24 | 0 | 0 | N/A | 0.20\% | 0.20\% | 0 | 0 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.20\% | 0.20\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 2 | 0.0000 | 0.20\% | 0.20\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 1 | 9 | 0.1111 | 0.20\% | 0.20\% | 0.0 | 0.0 | 5556\% | 5556\% |
| 28 | 1 | 30 | 0.0333 | 0.20\% | 0.20\% | 0.1 | 0.1 | 1667\% | 1667\% |
| 29 | 0 | 90 | 0.0000 | 0.20\% | 0.20\% | 0.2 | 0.2 | 0\% | 0\% |
| 30 | 0 | 204 | 0.0000 | 0.20\% | 0.20\% | 0.4 | 0.4 | 0\% | 0\% |
| 31 | 0 | 377 | 0.0000 | 0.22\% | 0.22\% | 0.8 | 0.8 | 0\% | 0\% |
| 32 | 0 | 589 | 0.0000 | 0.24\% | 0.24\% | 1.4 | 1.4 | 0\% | 0\% |
| 33 | 2 | 860 | 0.0023 | 0.26\% | 0.26\% | 2.2 | 2.2 | 89\% | 89\% |
| 34 | 4 | 1,204 | 0.0033 | 0.28\% | 0.28\% | 3.4 | 3.4 | 119\% | 119\% |
| 35 | 4 | 1,653 | 0.0024 | 0.30\% | 0.30\% | 5.0 | 5.0 | 81\% | 81\% |
| 36 | 5 | 2,150 | 0.0023 | 0.32\% | 0.32\% | 6.9 | 6.9 | 73\% | 73\% |
| 37 | 5 | 2,759 | 0.0018 | 0.34\% | 0.34\% | 9.4 | 9.4 | 53\% | 53\% |
| 38 | 13 | 3,493 | 0.0037 | 0.36\% | 0.36\% | 12.6 | 12.6 | 103\% | 103\% |
| 39 | 14 | 4,306 | 0.0033 | 0.38\% | 0.38\% | 16.4 | 16.4 | 86\% | 86\% |
| 40 | 15 | 5,194 | 0.0029 | 0.40\% | 0.40\% | 20.8 | 20.8 | 72\% | 72\% |
| 41 | 11 | 6,058 | 0.0018 | 0.42\% | 0.42\% | 25.4 | 25.4 | 43\% | 43\% |
| 42 | 18 | 6,941 | 0.0026 | 0.44\% | 0.44\% | 30.5 | 30.5 | 59\% | 59\% |
| 43 | 29 | 7,828 | 0.0037 | 0.46\% | 0.46\% | 36.0 | 36.0 | 81\% | 81\% |
| 44 | 26 | 8,687 | 0.0030 | 0.48\% | 0.48\% | 41.7 | 41.7 | 62\% | 62\% |
| 45 | 29 | 9,493 | 0.0031 | 0.50\% | 0.50\% | 47.5 | 47.5 | 61\% | 61\% |
| 46 | 38 | 10,244 | 0.0037 | 0.52\% | 0.52\% | 53.3 | 53.3 | 71\% | 71\% |
| 47 | 42 | 10,881 | 0.0039 | 0.54\% | 0.54\% | 58.8 | 58.8 | 71\% | 71\% |
| 48 | 57 | 11,383 | 0.0050 | 0.56\% | 0.56\% | 63.7 | 63.7 | 89\% | 89\% |
| 49 | 64 | 11,762 | 0.0054 | 0.58\% | 0.58\% | 68.2 | 68.2 | 94\% | 94\% |
| 50 | 62 | 12,097 | 0.0051 | 0.60\% | 0.60\% | 72.6 | 72.6 | 85\% | 85\% |
| 51 | 68 | 12,110 | 0.0056 | 0.62\% | 0.62\% | 75.1 | 75.1 | 91\% | 91\% |
| 52 | 71 | 12,067 | 0.0059 | 0.64\% | 0.64\% | 77.2 | 77.2 | 92\% | 92\% |
| 53 | 87 | 12,090 | 0.0072 | 0.66\% | 0.66\% | 79.8 | 79.8 | 109\% | 109\% |
| 54 | 87 | 12,001 | 0.0072 | 0.68\% | 0.68\% | 81.6 | 81.6 | 107\% | 107\% |
| 55 | 86 | 11,796 | 0.0073 | 0.70\% | 0.70\% | 82.6 | 82.6 | 104\% | 104\% |
| 56 | 69 | 11,113 | 0.0062 | 0.70\% | 0.70\% | 77.8 | 77.8 | 89\% | 89\% |
| 57 | 75 | 10,396 | 0.0072 | 0.70\% | 0.70\% | 72.8 | 72.8 | 103\% | 103\% |
| 58 | 86 | 9,668 | 0.0089 | 0.70\% | 0.70\% | 67.7 | 67.7 | 127\% | 127\% |
| 59 | 75 | 8,934 | 0.0084 | 0.70\% | 0.70\% | 62.5 | 62.5 | 120\% | 120\% |
| 60 | 64 | 8,243 | 0.0078 | 0.70\% | 0.70\% | 57.7 | 57.7 | 111\% | 111\% |
| 61 | 45 | 7,609 | 0.0059 | 0.70\% | 0.70\% | 53.3 | 53.3 | 84\% | 84\% |
| 62 | 29 | 6,887 | 0.0042 | 0.70\% | 0.70\% | 48.2 | 48.2 | 60\% | 60\% |
| 63 | 23 | 5,252 | 0.0044 | 0.70\% | 0.70\% | 36.8 | 36.8 | 63\% | 63\% |
| 64 | 20 | 4,206 | 0.0048 | 0.70\% | 0.70\% | 29.4 | 29.4 | 68\% | 68\% |
| 65 | 13 | 3,392 | 0.0038 | 0.70\% | 0.70\% | 23.7 | 23.7 | 55\% | 55\% |
| 66 | 9 | 2,777 | 0.0032 | 0.70\% | 0.70\% | 19.4 | 19.4 | 46\% | 46\% |
| 67 | 7 | 2,207 | 0.0032 | 0.70\% | 0.70\% | 15.4 | 15.4 | 45\% | 45\% |
| 68 | 8 | 1,730 | 0.0046 | 0.70\% | 0.70\% | 12.1 | 12.1 | 66\% | 66\% |
| 69 | 5 | 1,405 | 0.0036 | 0.70\% | 0.70\% | 9.8 | 9.8 | 51\% | 51\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 1,367 | 262,177 |  |  |  | 1,560.2 | 1,560.2 | 88\% | 88\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

|  | TABLE 9B |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) /(3) } \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.20\% | 0.20\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.20\% | 0.20\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.20\% | 0.20\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 0 | N/A | 0.20\% | 0.20\% | 0 | 0 | 0\% | 0\% |
| 24 | 0 | 0 | N/A | 0.20\% | 0.20\% | 0 | 0 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.20\% | 0.20\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 2 | 0.0000 | 0.20\% | 0.20\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 3 | 0.0000 | 0.20\% | 0.20\% | 0.0 | 0.0 | 0\% | 0\% |
| 28 | 0 | 15 | 0.0000 | 0.20\% | 0.20\% | 0.0 | 0.0 | 0\% | 0\% |
| 29 | 0 | 39 | 0.0000 | 0.20\% | 0.20\% | 0.1 | 0.1 | 0\% | 0\% |
| 30 | 1 | 105 | 0.0095 | 0.20\% | 0.20\% | 0.2 | 0.2 | 476\% | 476\% |
| 31 | 1 | 199 | 0.0050 | 0.20\% | 0.20\% | 0.4 | 0.4 | 251\% | 251\% |
| 32 | 1 | 379 | 0.0026 | 0.20\% | 0.20\% | 0.8 | 0.8 | 132\% | 132\% |
| 33 | 4 | 642 | 0.0062 | 0.20\% | 0.20\% | 1.3 | 1.3 | 312\% | 312\% |
| 34 | 1 | 994 | 0.0010 | 0.20\% | 0.20\% | 2.0 | 2.0 | 50\% | 50\% |
| 35 | 0 | 1,476 | 0.0000 | 0.20\% | 0.20\% | 3.0 | 3.0 | 0\% | 0\% |
| 36 | 4 | 2,057 | 0.0019 | 0.21\% | 0.21\% | 4.3 | 4.3 | 93\% | 93\% |
| 37 | 4 | 2,848 | 0.0014 | 0.22\% | 0.22\% | 6.3 | 6.3 | 64\% | 64\% |
| 38 | 3 | 3,678 | 0.0008 | 0.23\% | 0.23\% | 8.5 | 8.5 | 35\% | 35\% |
| 39 | 9 | 4,662 | 0.0019 | 0.24\% | 0.24\% | 11.2 | 11.2 | 80\% | 80\% |
| 40 | 13 | 5,688 | 0.0023 | 0.25\% | 0.25\% | 14.2 | 14.2 | 91\% | 91\% |
| 41 | 20 | 6,674 | 0.0030 | 0.26\% | 0.26\% | 17.4 | 17.4 | 115\% | 115\% |
| 42 | 11 | 7,681 | 0.0014 | 0.27\% | 0.27\% | 20.7 | 20.7 | 53\% | 53\% |
| 43 | 20 | 8,691 | 0.0023 | 0.28\% | 0.28\% | 24.3 | 24.3 | 82\% | 82\% |
| 44 | 29 | 9,601 | 0.0030 | 0.29\% | 0.29\% | 27.8 | 27.8 | 104\% | 104\% |
| 45 | 31 | 10,477 | 0.0030 | 0.30\% | 0.30\% | 31.4 | 31.4 | 99\% | 99\% |
| 46 | 28 | 11,203 | 0.0025 | 0.34\% | 0.34\% | 38.1 | 38.1 | 74\% | 74\% |
| 47 | 45 | 11,862 | 0.0038 | 0.38\% | 0.38\% | 45.1 | 45.1 | 100\% | 100\% |
| 48 | 46 | 12,393 | 0.0037 | 0.42\% | 0.42\% | 52.1 | 52.1 | 88\% | 88\% |
| 49 | 60 | 12,692 | 0.0047 | 0.46\% | 0.46\% | 58.4 | 58.4 | 103\% | 103\% |
| 50 | 56 | 12,936 | 0.0043 | 0.50\% | 0.50\% | 64.7 | 64.7 | 87\% | 87\% |
| 51 | 63 | 13,065 | 0.0048 | 0.54\% | 0.54\% | 70.6 | 70.6 | 89\% | 89\% |
| 52 | 68 | 13,237 | 0.0051 | 0.58\% | 0.58\% | 76.8 | 76.8 | 89\% | 89\% |
| 53 | 92 | 13,123 | 0.0070 | 0.62\% | 0.62\% | 81.4 | 81.4 | 113\% | 113\% |
| 54 | 93 | 13,136 | 0.0071 | 0.66\% | 0.66\% | 86.7 | 86.7 | 107\% | 107\% |
| 55 | 91 | 12,893 | 0.0071 | 0.70\% | 0.70\% | 90.3 | 90.3 | 101\% | 101\% |
| 56 | 76 | 12,138 | 0.0063 | 0.70\% | 0.70\% | 85.0 | 85.0 | 89\% | 89\% |
| 57 | 74 | 11,571 | 0.0064 | 0.70\% | 0.70\% | 81.0 | 81.0 | 91\% | 91\% |
| 58 | 76 | 10,863 | 0.0070 | 0.70\% | 0.70\% | 76.0 | 76.0 | 100\% | 100\% |
| 59 | 75 | 10,232 | 0.0073 | 0.70\% | 0.70\% | 71.6 | 71.6 | 105\% | 105\% |
| 60 | 68 | 9,552 | 0.0071 | 0.70\% | 0.70\% | 66.9 | 66.9 | 102\% | 102\% |
| 61 | 66 | 8,936 | 0.0074 | 0.70\% | 0.70\% | 62.6 | 62.6 | 106\% | 106\% |
| 62 | 38 | 8,114 | 0.0047 | 0.70\% | 0.70\% | 56.8 | 56.8 | 67\% | 67\% |
| 63 | 23 | 6,360 | 0.0036 | 0.70\% | 0.70\% | 44.5 | 44.5 | 52\% | 52\% |
| 64 | 17 | 4,922 | 0.0035 | 0.70\% | 0.70\% | 34.5 | 34.5 | 49\% | 49\% |
| 65 | 9 | 3,944 | 0.0023 | 0.70\% | 0.70\% | 27.6 | 27.6 | 33\% | 33\% |
| 66 | 9 | 3,186 | 0.0028 | 0.70\% | 0.70\% | 22.3 | 22.3 | 40\% | 40\% |
| 67 | 8 | 2,432 | 0.0033 | 0.70\% | 0.70\% | 17.0 | 17.0 | 47\% | 47\% |
| 68 | 2 | 1,894 | 0.0011 | 0.70\% | 0.70\% | 13.3 | 13.3 | 15\% | 15\% |
| 69 | 2 | 1,484 | 0.0013 | 0.70\% | 0.70\% | 10.4 | 10.4 | 19\% | 19\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 1,337 | 288,079 |  |  |  | 1,507.2 | 1,507.2 | 89\% | 89\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL

## ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS

 MEN AND WOMEN|  | TABLE 9C |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2)/(3) } \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 24 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 4 | 0.0000 | 0.20\% | 0.20\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 1 | 12 | 0.0833 | 0.20\% | 0.20\% | 0.0 | 0.0 | 4167\% | 4167\% |
| 28 | 1 | 45 | 0.0222 | 0.20\% | 0.20\% | 0.1 | 0.1 | 1111\% | 1111\% |
| 29 | 0 | 129 | 0.0000 | 0.20\% | 0.20\% | 0.3 | 0.3 | 0\% | 0\% |
| 30 | 1 | 309 | 0.0032 | 0.20\% | 0.20\% | 0.6 | 0.6 | 162\% | 162\% |
| 31 | 1 | 576 | 0.0017 | 0.21\% | 0.21\% | 1.2 | 1.2 | 81\% | 81\% |
| 32 | 1 | 968 | 0.0010 | 0.22\% | 0.22\% | 2.2 | 2.2 | 46\% | 46\% |
| 33 | 6 | 1,502 | 0.0040 | 0.23\% | 0.23\% | 3.5 | 3.5 | 170\% | 170\% |
| 34 | 5 | 2,198 | 0.0023 | 0.24\% | 0.24\% | 5.4 | 5.4 | 93\% | 93\% |
| 35 | 4 | 3,129 | 0.0013 | 0.25\% | 0.25\% | 7.9 | 7.9 | 51\% | 51\% |
| 36 | 9 | 4,207 | 0.0021 | 0.27\% | 0.27\% | 11.2 | 11.2 | 80\% | 80\% |
| 37 | 9 | 5,607 | 0.0016 | 0.28\% | 0.28\% | 15.6 | 15.6 | 58\% | 58\% |
| 38 | 16 | 7,171 | 0.0022 | 0.29\% | 0.29\% | 21.0 | 21.0 | 76\% | 76\% |
| 39 | 23 | 8,968 | 0.0026 | 0.31\% | 0.31\% | 27.6 | 27.6 | 83\% | 83\% |
| 40 | 28 | 10,882 | 0.0026 | 0.32\% | 0.32\% | 35.0 | 35.0 | 80\% | 80\% |
| 41 | 31 | 12,732 | 0.0024 | 0.34\% | 0.34\% | 42.8 | 42.8 | 72\% | 72\% |
| 42 | 29 | 14,622 | 0.0020 | 0.35\% | 0.35\% | 51.3 | 51.3 | 57\% | 57\% |
| 43 | 49 | 16,519 | 0.0030 | 0.37\% | 0.37\% | 60.3 | 60.3 | 81\% | 81\% |
| 44 | 55 | 18,288 | 0.0030 | 0.38\% | 0.38\% | 69.5 | 69.5 | 79\% | 79\% |
| 45 | 60 | 19,970 | 0.0030 | 0.40\% | 0.40\% | 78.9 | 78.9 | 76\% | 76\% |
| 46 | 66 | 21,447 | 0.0031 | 0.43\% | 0.43\% | 91.4 | 91.4 | 72\% | 72\% |
| 47 | 87 | 22,743 | 0.0038 | 0.46\% | 0.46\% | 103.8 | 103.8 | 84\% | 84\% |
| 48 | 103 | 23,776 | 0.0043 | 0.49\% | 0.49\% | 115.8 | 115.8 | 89\% | 89\% |
| 49 | 124 | 24,454 | 0.0051 | 0.52\% | 0.52\% | 126.6 | 126.6 | 98\% | 98\% |
| 50 | 118 | 25,033 | 0.0047 | 0.55\% | 0.55\% | 137.3 | 137.3 | 86\% | 86\% |
| 51 | 131 | 25,175 | 0.0052 | 0.58\% | 0.58\% | 145.6 | 145.6 | 90\% | 90\% |
| 52 | 139 | 25,304 | 0.0055 | 0.61\% | 0.61\% | 154.0 | 154.0 | 90\% | 90\% |
| 53 | 179 | 25,213 | 0.0071 | 0.64\% | 0.64\% | 161.2 | 161.2 | 111\% | 111\% |
| 54 | 180 | 25,137 | 0.0072 | 0.67\% | 0.67\% | 168.3 | 168.3 | 107\% | 107\% |
| 55 | 177 | 24,689 | 0.0072 | 0.70\% | 0.70\% | 172.8 | 172.8 | 102\% | 102\% |
| 56 | 145 | 23,251 | 0.0062 | 0.70\% | 0.70\% | 162.8 | 162.8 | 89\% | 89\% |
| 57 | 149 | 21,967 | 0.0068 | 0.70\% | 0.70\% | 153.8 | 153.8 | 97\% | 97\% |
| 58 | 162 | 20,531 | 0.0079 | 0.70\% | 0.70\% | 143.7 | 143.7 | 113\% | 113\% |
| 59 | 150 | 19,166 | 0.0078 | 0.70\% | 0.70\% | 134.2 | 134.2 | 112\% | 112\% |
| 60 | 132 | 17,795 | 0.0074 | 0.70\% | 0.70\% | 124.6 | 124.6 | 106\% | 106\% |
| 61 | 111 | 16,545 | 0.0067 | 0.70\% | 0.70\% | 115.8 | 115.8 | 96\% | 96\% |
| 62 | 67 | 15,001 | 0.0045 | 0.70\% | 0.70\% | 105.0 | 105.0 | 64\% | 64\% |
| 63 | 46 | 11,612 | 0.0040 | 0.70\% | 0.70\% | 81.3 | 81.3 | 57\% | 57\% |
| 64 | 37 | 9,128 | 0.0041 | 0.70\% | 0.70\% | 63.9 | 63.9 | 58\% | 58\% |
| 65 | 22 | 7,336 | 0.0030 | 0.70\% | 0.70\% | 51.4 | 51.4 | 43\% | 43\% |
| 66 | 18 | 5,963 | 0.0030 | 0.70\% | 0.70\% | 41.7 | 41.7 | 43\% | 43\% |
| 67 | 15 | 4,639 | 0.0032 | 0.70\% | 0.70\% | 32.5 | 32.5 | 46\% | 46\% |
| 68 | 10 | 3,624 | 0.0028 | 0.70\% | 0.70\% | 25.4 | 25.4 | 39\% | 39\% |
| 69 | 7 | 2,889 | 0.0024 | 0.70\% | 0.70\% | 20.2 | 20.2 | 35\% | 35\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 2,704 | 550,256 |  |  |  | 3,067.4 | 3,067.4 | 88\% | 88\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL

## ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS

|  | TABLE 9A GROUPED |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | Actual Rate $(2) /(3)$ | Expected <br> (7) / (3) | Proposed $(8) /(3)$ | Expected | Proposed | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 25-29 | 2 | 131 | 0.0153 | 0.20\% | 0.20\% | 0.3 | 0.3 | 763\% | 763\% |
| 30-34 | 6 | 3,234 | 0.0019 | 0.26\% | 0.26\% | 8.3 | 8.3 | 73\% | 73\% |
| 35-39 | 41 | 14,361 | 0.0029 | 0.35\% | 0.35\% | 50.2 | 50.2 | 82\% | 82\% |
| 40-44 | 99 | 34,708 | 0.0029 | 0.45\% | 0.45\% | 154.5 | 154.5 | 64\% | 64\% |
| 45-49 | 230 | 53,763 | 0.0043 | 0.54\% | 0.54\% | 291.5 | 291.5 | 79\% | 79\% |
| 50-54 | 375 | 60,365 | 0.0062 | 0.64\% | 0.64\% | 386.3 | 386.3 | 97\% | 97\% |
| 55-59 | 391 | 51,907 | 0.0075 | 0.70\% | 0.70\% | 363.3 | 363.3 | 108\% | 108\% |
| 60-64 | 181 | 32,197 | 0.0056 | 0.70\% | 0.70\% | 225.4 | 225.4 | 80\% | 80\% |
| 65-69 | 42 | 11,511 | 0.0036 | 0.70\% | 0.70\% | 80.6 | 80.6 | 52\% | 52\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 1,367 | 262,177 |  |  |  | 1,560.2 | 1,560.2 | 88\% | 88\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL

## ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS

 WOMEN| Age | TABLE 9B GROUPED |  |  | Assumed Probability $\begin{gathered}\text { 8-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2)/(3) } \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 25-29 | 0 | 59 | 0.0000 | 0.20\% | 0.20\% | 0.1 | 0.1 | 0\% | 0\% |
| 30-34 | 8 | 2,319 | 0.0034 | 0.20\% | 0.20\% | 4.6 | 4.6 | 172\% | 172\% |
| 35-39 | 20 | 14,721 | 0.0014 | 0.23\% | 0.23\% | 33.2 | 33.2 | 60\% | 60\% |
| 40-44 | 93 | 38,335 | 0.0024 | 0.27\% | 0.27\% | 104.5 | 104.5 | 89\% | 89\% |
| 45-49 | 210 | 58,627 | 0.0036 | 0.38\% | 0.38\% | 225.0 | 225.0 | 93\% | 93\% |
| 50-54 | 372 | 65,497 | 0.0057 | 0.58\% | 0.58\% | 380.1 | 380.1 | 98\% | 98\% |
| 55-59 | 392 | 57,697 | 0.0068 | 0.70\% | 0.70\% | 403.9 | 403.9 | 97\% | 97\% |
| 60-64 | 212 | 37,884 | 0.0056 | 0.70\% | 0.70\% | 265.2 | 265.2 | 80\% | 80\% |
| 65-69 | 30 | 12,940 | 0.0023 | 0.70\% | 0.70\% | 90.6 | 90.6 | 33\% | 33\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 1,337 | 288,079 |  |  |  | 1,507.2 | 1,507.2 | 89\% | 89\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL

## ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS

 MEN AND WOMEN|  | TABLE 9C GROUPED |  |  | Assumed Probability |  | 8-YEAR PERIOD ENDING 6/30/2011$\begin{aligned} & \text { Expected Disabilities }\end{aligned} \quad$ Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \quad(2) /(3) \\ & \hline \end{aligned}$ | Expected $(7) /(3)$ | $\begin{gathered} \text { Proposed } \\ (8) /(3) \\ \hline \end{gathered}$ | Expected | Proposed | Expected $(2) /(7)$ | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 25-29 | 2 | 190 | 0.0105 | 0.20\% | 0.20\% | 0.4 | 0.4 | 526\% | 526\% |
| 30-34 | 14 | 5,553 | 0.0025 | 0.23\% | 0.23\% | 12.9 | 12.9 | 109\% | 109\% |
| 35-39 | 61 | 29,082 | 0.0021 | 0.29\% | 0.29\% | 83.3 | 83.3 | 73\% | 73\% |
| 40-44 | 192 | 73,043 | 0.0026 | 0.35\% | 0.35\% | 259.0 | 259.0 | 74\% | 74\% |
| 45-49 | 440 | 112,390 | 0.0039 | 0.46\% | 0.46\% | 516.5 | 516.5 | 85\% | 85\% |
| 50-54 | 747 | 125,862 | 0.0059 | 0.61\% | 0.61\% | 766.4 | 766.4 | 97\% | 97\% |
| 55-59 | 783 | 109,604 | 0.0071 | 0.70\% | 0.70\% | 767.2 | 767.2 | 102\% | 102\% |
| 60-64 | 393 | 70,081 | 0.0056 | 0.70\% | 0.70\% | 490.6 | 490.6 | 80\% | 80\% |
| 65-69 | 72 | 24,451 | 0.0029 | 0.70\% | 0.70\% | 171.2 | 171.2 | 42\% | 42\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 2,704 | 550,256 |  |  |  | 3,067.4 | 3,067.4 | 88\% | 88\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Plan Year | TABLE 9D |  |  | 10-YEAR PER | Disability Rate |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending June 30, | Life Years Exposed | Actual Disabilities | Expected Disabilities | Actual / Expected | $\begin{aligned} & \text { Actual } \\ & \text { (3) / (2) } \end{aligned}$ | $\begin{gathered} \text { Expected } \\ (4) /(2) \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 64,636 | 405 | 343.3 | 118\% | 0.63\% | 0.53\% |
| 2005 | 66,660 | 259 | 358.2 | 72\% | 0.39\% | 0.54\% |
| 2006 | 67,782 | 287 | 371.4 | 77\% | 0.42\% | 0.55\% |
| 2007 | 68,688 | 369 | 382.1 | 97\% | 0.54\% | 0.56\% |
| 2008 | 68,579 | 353 | 386.4 | 91\% | 0.51\% | 0.56\% |
| 2009 | 69,918 | 335 | 397.7 | 84\% | 0.48\% | 0.57\% |
| 2010 | 71,183 | 352 | 408.6 | 86\% | 0.49\% | 0.57\% |
| 2011 | 72,810 | 364 | 419.8 | 87\% | 0.50\% | 0.58\% |
| 2012 | 72,472 | 343 | 420.0 | 82\% | 0.47\% | 0.58\% |
| 2013 | 72,213 | 180 | 421.3 | 43\% | 0.25\% | 0.58\% |
| Total | 694,941 | 3,247 | 3,908.6 | 83\% | 0.47\% | 0.56\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL aCCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN

| Age | TABLE 10A |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ \text { (3) } \times(5) \\ \hline \end{gathered}$ | Proposed $(3) \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 81 | 0.0000 | 0.04\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 205 | 0.0000 | 0.04\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 22 | 0 | 406 | 0.0000 | 0.04\% | 0.04\% | 0.2 | 0.2 | 0\% | 0\% |
| 23 | 0 | 692 | 0.0000 | 0.04\% | 0.04\% | 0.3 | 0.3 | 0\% | 0\% |
| 24 | 0 | 1,021 | 0.0000 | 0.04\% | 0.04\% | 0.4 | 0.4 | 0\% | 0\% |
| 25 | 0 | 1,336 | 0.0000 | 0.04\% | 0.04\% | 0.5 | 0.5 | 0\% | 0\% |
| 26 | 0 | 1,599 | 0.0000 | 0.04\% | 0.04\% | 0.6 | 0.6 | 0\% | 0\% |
| 27 | 0 | 1,844 | 0.0000 | 0.04\% | 0.04\% | 0.7 | 0.7 | 0\% | 0\% |
| 28 | 0 | 2,106 | 0.0000 | 0.04\% | 0.04\% | 0.8 | 0.8 | 0\% | 0\% |
| 29 | 0 | 2,297 | 0.0000 | 0.04\% | 0.04\% | 0.9 | 0.9 | 0\% | 0\% |
| 30 | 0 | 2,603 | 0.0000 | 0.04\% | 0.04\% | 1.0 | 1.0 | 0\% | 0\% |
| 31 | 2 | 2,774 | 0.0007 | 0.04\% | 0.04\% | 1.1 | 1.1 | 180\% | 180\% |
| 32 | 1 | 2,913 | 0.0003 | 0.04\% | 0.04\% | 1.2 | 1.2 | 86\% | 86\% |
| 33 | 0 | 3,005 | 0.0000 | 0.04\% | 0.04\% | 1.2 | 1.2 | 0\% | 0\% |
| 34 | 1 | 3,066 | 0.0003 | 0.04\% | 0.04\% | 1.2 | 1.2 | 82\% | 82\% |
| 35 | 3 | 3,274 | 0.0009 | 0.04\% | 0.04\% | 1.3 | 1.3 | 229\% | 229\% |
| 36 | 3 | 3,387 | 0.0009 | 0.04\% | 0.04\% | 1.4 | 1.4 | 221\% | 221\% |
| 37 | 4 | 3,729 | 0.0011 | 0.04\% | 0.04\% | 1.5 | 1.5 | 268\% | 268\% |
| 38 | 3 | 4,111 | 0.0007 | 0.04\% | 0.04\% | 1.6 | 1.6 | 182\% | 182\% |
| 39 | 3 | 4,488 | 0.0007 | 0.04\% | 0.04\% | 1.8 | 1.8 | 167\% | 167\% |
| 40 | 3 | 4,876 | 0.0006 | 0.04\% | 0.04\% | 2.0 | 2.0 | 154\% | 154\% |
| 41 | 2 | 5,197 | 0.0004 | 0.04\% | 0.04\% | 2.1 | 2.1 | 96\% | 96\% |
| 42 | 2 | 5,655 | 0.0004 | 0.04\% | 0.04\% | 2.3 | 2.3 | 88\% | 88\% |
| 43 | 1 | 6,060 | 0.0002 | 0.04\% | 0.04\% | 2.4 | 2.4 | 41\% | 41\% |
| 44 | 2 | 6,644 | 0.0003 | 0.04\% | 0.04\% | 2.7 | 2.7 | 75\% | 75\% |
| 45 | 2 | 7,196 | 0.0003 | 0.04\% | 0.04\% | 2.9 | 2.9 | 69\% | 69\% |
| 46 | 3 | 7,617 | 0.0004 | 0.04\% | 0.04\% | 3.0 | 3.0 | 98\% | 98\% |
| 47 | 5 | 8,090 | 0.0006 | 0.04\% | 0.04\% | 3.2 | 3.2 | 155\% | 155\% |
| 48 | 1 | 8,370 | 0.0001 | 0.04\% | 0.04\% | 3.3 | 3.3 | 30\% | 30\% |
| 49 | 2 | 8,519 | 0.0002 | 0.04\% | 0.04\% | 3.4 | 3.4 | 59\% | 59\% |
| 50 | 4 | 8,670 | 0.0005 | 0.04\% | 0.04\% | 3.5 | 3.5 | 115\% | 115\% |
| 51 | 0 | 8,619 | 0.0000 | 0.04\% | 0.04\% | 3.4 | 3.4 | 0\% | 0\% |
| 52 | 1 | 8,586 | 0.0001 | 0.04\% | 0.04\% | 3.4 | 3.4 | 29\% | 29\% |
| 53 | 2 | 8,644 | 0.0002 | 0.04\% | 0.04\% | 3.5 | 3.5 | 58\% | 58\% |
| 54 | 2 | 8,523 | 0.0002 | 0.04\% | 0.04\% | 3.4 | 3.4 | 59\% | 59\% |
| 55 | 4 | 8,303 | 0.0005 | 0.04\% | 0.04\% | 3.3 | 3.3 | 120\% | 120\% |
| 56 | 2 | 7,845 | 0.0003 | 0.04\% | 0.04\% | 3.1 | 3.1 | 64\% | 64\% |
| 57 | 0 | 7,400 | 0.0000 | 0.04\% | 0.04\% | 3.0 | 3.0 | 0\% | 0\% |
| 58 | 1 | 7,056 | 0.0001 | 0.04\% | 0.04\% | 2.8 | 2.8 | 35\% | 35\% |
| 59 | 2 | 6,682 | 0.0003 | 0.04\% | 0.04\% | 2.7 | 2.7 | 75\% | 75\% |
| 60 | 1 | 6,236 | 0.0002 | 0.04\% | 0.04\% | 2.5 | 2.5 | 40\% | 40\% |
| 61 | 0 | 5,759 | 0.0000 | 0.04\% | 0.04\% | 2.3 | 2.3 | 0\% | 0\% |
| 62 | 2 | 5,104 | 0.0004 | 0.04\% | 0.04\% | 2.0 | 2.0 | 98\% | 98\% |
| 63 | 0 | 3,913 | 0.0000 | 0.04\% | 0.04\% | 1.6 | 1.6 | 0\% | 0\% |
| 64 | 1 | 3,143 | 0.0003 | 0.04\% | 0.04\% | 1.3 | 1.3 | 80\% | 80\% |
| 65 | 1 | 2,591 | 0.0004 | 0.04\% | 0.04\% | 1.0 | 1.0 | 96\% | 96\% |
| 66 | 0 | 2,176 | 0.0000 | 0.04\% | 0.04\% | 0.9 | 0.9 | 0\% | 0\% |
| 67 | 0 | 1,700 | 0.0000 | 0.04\% | 0.04\% | 0.7 | 0.7 | 0\% | 0\% |
| 68 | 0 | 1,304 | 0.0000 | 0.04\% | 0.04\% | 0.5 | 0.5 | 0\% | 0\% |
| 69 | 0 | 1,024 | 0.0000 | 0.04\% | 0.04\% | 0.4 | 0.4 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 14 | 0.0000 | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 66 | 226,453 |  |  |  | 90.6 | 90.6 | 73\% | 73\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL aCCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

|  | TABLE 10B |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) /(3) } \\ & \hline \end{aligned}$ | Expected | Proposed | Expected <br> (3) $\times$ (5) | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 50 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 123 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 255 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 23 | 0 | 532 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 24 | 0 | 951 | 0.0000 | 0.02\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 25 | 0 | 1,544 | 0.0000 | 0.02\% | 0.02\% | 0.3 | 0.3 | 0\% | 0\% |
| 26 | 0 | 2,019 | 0.0000 | 0.02\% | 0.02\% | 0.4 | 0.4 | 0\% | 0\% |
| 27 | 0 | 2,500 | 0.0000 | 0.02\% | 0.02\% | 0.5 | 0.5 | 0\% | 0\% |
| 28 | 0 | 3,064 | 0.0000 | 0.02\% | 0.02\% | 0.6 | 0.6 | 0\% | 0\% |
| 29 | 0 | 3,482 | 0.0000 | 0.02\% | 0.02\% | 0.7 | 0.7 | 0\% | 0\% |
| 30 | 2 | 3,834 | 0.0005 | 0.02\% | 0.02\% | 0.8 | 0.8 | 261\% | 261\% |
| 31 | 0 | 4,132 | 0.0000 | 0.02\% | 0.02\% | 0.8 | 0.8 | 0\% | 0\% |
| 32 | 0 | 4,411 | 0.0000 | 0.02\% | 0.02\% | 0.9 | 0.9 | 0\% | 0\% |
| 33 | 1 | 4,595 | 0.0002 | 0.02\% | 0.02\% | 0.9 | 0.9 | 109\% | 109\% |
| 34 | 0 | 4,716 | 0.0000 | 0.02\% | 0.02\% | 0.9 | 0.9 | 0\% | 0\% |
| 35 | 1 | 4,928 | 0.0002 | 0.02\% | 0.02\% | 1.0 | 1.0 | 101\% | 101\% |
| 36 | 2 | 5,033 | 0.0004 | 0.02\% | 0.02\% | 1.0 | 1.0 | 199\% | 199\% |
| 37 | 0 | 5,414 | 0.0000 | 0.02\% | 0.02\% | 1.1 | 1.1 | 0\% | 0\% |
| 38 | 1 | 5,862 | 0.0002 | 0.02\% | 0.02\% | 1.2 | 1.2 | 85\% | 85\% |
| 39 | 0 | 6,275 | 0.0000 | 0.02\% | 0.02\% | 1.3 | 1.3 | 0\% | 0\% |
| 40 | 1 | 6,790 | 0.0001 | 0.02\% | 0.02\% | 1.4 | 1.4 | 74\% | 74\% |
| 41 | 2 | 7,089 | 0.0003 | 0.02\% | 0.02\% | 1.4 | 1.4 | 141\% | 141\% |
| 42 | 3 | 7,520 | 0.0004 | 0.02\% | 0.02\% | 1.5 | 1.5 | 199\% | 199\% |
| 43 | 1 | 8,137 | 0.0001 | 0.02\% | 0.02\% | 1.6 | 1.6 | 61\% | 61\% |
| 44 | 1 | 8,641 | 0.0001 | 0.02\% | 0.02\% | 1.7 | 1.7 | 58\% | 58\% |
| 45 | 3 | 9,173 | 0.0003 | 0.02\% | 0.02\% | 1.8 | 1.8 | 164\% | 164\% |
| 46 | 5 | 9,456 | 0.0005 | 0.02\% | 0.02\% | 1.9 | 1.9 | 264\% | 264\% |
| 47 | 4 | 9,872 | 0.0004 | 0.02\% | 0.02\% | 2.0 | 2.0 | 203\% | 203\% |
| 48 | 1 | 10,170 | 0.0001 | 0.02\% | 0.02\% | 2.0 | 2.0 | 49\% | 49\% |
| 49 | 3 | 10,422 | 0.0003 | 0.02\% | 0.02\% | 2.1 | 2.1 | 144\% | 144\% |
| 50 | 2 | 10,529 | 0.0002 | 0.02\% | 0.02\% | 2.1 | 2.1 | 95\% | 95\% |
| 51 | 2 | 10,601 | 0.0002 | 0.02\% | 0.02\% | 2.1 | 2.1 | 94\% | 94\% |
| 52 | 4 | 10,534 | 0.0004 | 0.02\% | 0.02\% | 2.1 | 2.1 | 190\% | 190\% |
| 53 | 0 | 10,321 | 0.0000 | 0.02\% | 0.02\% | 2.1 | 2.1 | 0\% | 0\% |
| 54 | 1 | 10,105 | 0.0001 | 0.02\% | 0.02\% | 2.0 | 2.0 | 49\% | 49\% |
| 55 | 3 | 9,644 | 0.0003 | 0.02\% | 0.02\% | 1.9 | 1.9 | 156\% | 156\% |
| 56 | 0 | 9,136 | 0.0000 | 0.02\% | 0.02\% | 1.8 | 1.8 | 0\% | 0\% |
| 57 | 1 | 8,596 | 0.0001 | 0.02\% | 0.02\% | 1.7 | 1.7 | 58\% | 58\% |
| 58 | 1 | 8,106 | 0.0001 | 0.02\% | 0.02\% | 1.6 | 1.6 | 62\% | 62\% |
| 59 | 2 | 7,649 | 0.0003 | 0.02\% | 0.02\% | 1.5 | 1.5 | 131\% | 131\% |
| 60 | 0 | 7,122 | 0.0000 | 0.02\% | 0.02\% | 1.4 | 1.4 | 0\% | 0\% |
| 61 | 0 | 6,797 | 0.0000 | 0.02\% | 0.02\% | 1.4 | 1.4 | 0\% | 0\% |
| 62 | 1 | 6,137 | 0.0002 | 0.02\% | 0.02\% | 1.2 | 1.2 | 81\% | 81\% |
| 63 | 1 | 4,865 | 0.0002 | 0.02\% | 0.02\% | 1.0 | 1.0 | 103\% | 103\% |
| 64 | 0 | 3,795 | 0.0000 | 0.02\% | 0.02\% | 0.8 | 0.8 | 0\% | 0\% |
| 65 | 0 | 2,948 | 0.0000 | 0.02\% | 0.02\% | 0.6 | 0.6 | 0\% | 0\% |
| 66 | 0 | 2,353 | 0.0000 | 0.02\% | 0.02\% | 0.5 | 0.5 | 0\% | 0\% |
| 67 | 0 | 1,741 | 0.0000 | 0.02\% | 0.02\% | 0.3 | 0.3 | 0\% | 0\% |
| 68 | 0 | 1,334 | 0.0000 | 0.02\% | 0.02\% | 0.3 | 0.3 | 0\% | 0\% |
| 69 | 0 | 1,037 | 0.0000 | 0.02\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 12 | 0.0000 | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 49 | 284,352 |  |  |  | 56.9 | 56.9 | 86\% | 86\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL aCCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

|  | TABLE 10C |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 131 | 0.0000 | 0.03\% | 0.03\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 328 | 0.0000 | 0.03\% | 0.03\% | 0.1 | 0.1 | 0\% | 0\% |
| 22 | 0 | 661 | 0.0000 | 0.03\% | 0.03\% | 0.2 | 0.2 | 0\% | 0\% |
| 23 | 0 | 1,224 | 0.0000 | 0.03\% | 0.03\% | 0.4 | 0.4 | 0\% | 0\% |
| 24 | 0 | 1,972 | 0.0000 | 0.03\% | 0.03\% | 0.6 | 0.6 | 0\% | 0\% |
| 25 | 0 | 2,880 | 0.0000 | 0.03\% | 0.03\% | 0.8 | 0.8 | 0\% | 0\% |
| 26 | 0 | 3,618 | 0.0000 | 0.03\% | 0.03\% | 1.0 | 1.0 | 0\% | 0\% |
| 27 | 0 | 4,344 | 0.0000 | 0.03\% | 0.03\% | 1.2 | 1.2 | 0\% | 0\% |
| 28 | 0 | 5,170 | 0.0000 | 0.03\% | 0.03\% | 1.5 | 1.5 | 0\% | 0\% |
| 29 | 0 | 5,779 | 0.0000 | 0.03\% | 0.03\% | 1.6 | 1.6 | 0\% | 0\% |
| 30 | 2 | 6,437 | 0.0003 | 0.03\% | 0.03\% | 1.8 | 1.8 | 111\% | 111\% |
| 31 | 2 | 6,906 | 0.0003 | 0.03\% | 0.03\% | 1.9 | 1.9 | 103\% | 103\% |
| 32 | 1 | 7,324 | 0.0001 | 0.03\% | 0.03\% | 2.0 | 2.0 | 49\% | 49\% |
| 33 | 1 | 7,600 | 0.0001 | 0.03\% | 0.03\% | 2.1 | 2.1 | 47\% | 47\% |
| 34 | 1 | 7,782 | 0.0001 | 0.03\% | 0.03\% | 2.2 | 2.2 | 46\% | 46\% |
| 35 | 4 | 8,202 | 0.0005 | 0.03\% | 0.03\% | 2.3 | 2.3 | 174\% | 174\% |
| 36 | 5 | 8,420 | 0.0006 | 0.03\% | 0.03\% | 2.4 | 2.4 | 212\% | 212\% |
| 37 | 4 | 9,143 | 0.0004 | 0.03\% | 0.03\% | 2.6 | 2.6 | 155\% | 155\% |
| 38 | 4 | 9,973 | 0.0004 | 0.03\% | 0.03\% | 2.8 | 2.8 | 142\% | 142\% |
| 39 | 3 | 10,763 | 0.0003 | 0.03\% | 0.03\% | 3.1 | 3.1 | 98\% | 98\% |
| 40 | 4 | 11,666 | 0.0003 | 0.03\% | 0.03\% | 3.3 | 3.3 | 121\% | 121\% |
| 41 | 4 | 12,286 | 0.0003 | 0.03\% | 0.03\% | 3.5 | 3.5 | 114\% | 114\% |
| 42 | 5 | 13,175 | 0.0004 | 0.03\% | 0.03\% | 3.8 | 3.8 | 133\% | 133\% |
| 43 | 2 | 14,197 | 0.0001 | 0.03\% | 0.03\% | 4.1 | 4.1 | 49\% | 49\% |
| 44 | 3 | 15,285 | 0.0002 | 0.03\% | 0.03\% | 4.4 | 4.4 | 68\% | 68\% |
| 45 | 5 | 16,369 | 0.0003 | 0.03\% | 0.03\% | 4.7 | 4.7 | 106\% | 106\% |
| 46 | 8 | 17,073 | 0.0005 | 0.03\% | 0.03\% | 4.9 | 4.9 | 162\% | 162\% |
| 47 | 9 | 17,962 | 0.0005 | 0.03\% | 0.03\% | 5.2 | 5.2 | 173\% | 173\% |
| 48 | 2 | 18,540 | 0.0001 | 0.03\% | 0.03\% | 5.4 | 5.4 | 37\% | 37\% |
| 49 | 5 | 18,941 | 0.0003 | 0.03\% | 0.03\% | 5.5 | 5.5 | 91\% | 91\% |
| 50 | 6 | 19,199 | 0.0003 | 0.03\% | 0.03\% | 5.6 | 5.6 | 108\% | 108\% |
| 51 | 2 | 19,220 | 0.0001 | 0.03\% | 0.03\% | 5.6 | 5.6 | 36\% | 36\% |
| 52 | 5 | 19,120 | 0.0003 | 0.03\% | 0.03\% | 5.5 | 5.5 | 90\% | 90\% |
| 53 | 2 | 18,965 | 0.0001 | 0.03\% | 0.03\% | 5.5 | 5.5 | 36\% | 36\% |
| 54 | 3 | 18,628 | 0.0002 | 0.03\% | 0.03\% | 5.4 | 5.4 | 55\% | 55\% |
| 55 | 7 | 17,947 | 0.0004 | 0.03\% | 0.03\% | 5.3 | 5.3 | 133\% | 133\% |
| 56 | 2 | 16,981 | 0.0001 | 0.03\% | 0.03\% | 5.0 | 5.0 | 40\% | 40\% |
| 57 | 1 | 15,996 | 0.0001 | 0.03\% | 0.03\% | 4.7 | 4.7 | 21\% | 21\% |
| 58 | 2 | 15,162 | 0.0001 | 0.03\% | 0.03\% | 4.4 | 4.4 | 45\% | 45\% |
| 59 | 4 | 14,331 | 0.0003 | 0.03\% | 0.03\% | 4.2 | 4.2 | 95\% | 95\% |
| 60 | 1 | 13,358 | 0.0001 | 0.03\% | 0.03\% | 3.9 | 3.9 | 26\% | 26\% |
| 61 | 0 | 12,556 | 0.0000 | 0.03\% | 0.03\% | 3.7 | 3.7 | 0\% | 0\% |
| 62 | 3 | 11,241 | 0.0003 | 0.03\% | 0.03\% | 3.3 | 3.3 | 92\% | 92\% |
| 63 | 1 | 8,778 | 0.0001 | 0.03\% | 0.03\% | 2.5 | 2.5 | 39\% | 39\% |
| 64 | 1 | 6,938 | 0.0001 | 0.03\% | 0.03\% | 2.0 | 2.0 | 50\% | 50\% |
| 65 | 1 | 5,539 | 0.0002 | 0.03\% | 0.03\% | 1.6 | 1.6 | 62\% | 62\% |
| 66 | 0 | 4,529 | 0.0000 | 0.03\% | 0.03\% | 1.3 | 1.3 | 0\% | 0\% |
| 67 | 0 | 3,441 | 0.0000 | 0.03\% | 0.03\% | 1.0 | 1.0 | 0\% | 0\% |
| 68 | 0 | 2,638 | 0.0000 | 0.03\% | 0.03\% | 0.8 | 0.8 | 0\% | 0\% |
| 69 | 0 | 2,061 | 0.0000 | 0.03\% | 0.03\% | 0.6 | 0.6 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 26 | 0.0000 | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 115 | 510,805 |  |  |  | 147.4 | 147.4 | 78\% | 78\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN

|  | TABLE 10A GROUPED |  |  | Assumed Probability $\quad \begin{gathered}\text { 4-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered} \quad$ Actual/Expected |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } /(\mathbf{3}) \\ & \hline \end{aligned}$ | Expected $(7) /(3)$ | $\begin{gathered} \text { Proposed } \\ (8) /(\mathbf{3}) \\ \hline \end{gathered}$ | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 2,405 | 0.0000 | 0.04\% | 0.04\% | 1.0 | 1.0 | 0\% | 0\% |
| 25-29 | 0 | 9,182 | 0.0000 | 0.04\% | 0.04\% | 3.7 | 3.7 | 0\% | 0\% |
| 30-34 | 4 | 14,361 | 0.0003 | 0.04\% | 0.04\% | 5.7 | 5.7 | 70\% | 70\% |
| 35-39 | 16 | 18,989 | 0.0008 | 0.04\% | 0.04\% | 7.6 | 7.6 | 211\% | 211\% |
| 40-44 | 10 | 28,432 | 0.0004 | 0.04\% | 0.04\% | 11.4 | 11.4 | 88\% | 88\% |
| 45-49 | 13 | 39,792 | 0.0003 | 0.04\% | 0.04\% | 15.9 | 15.9 | 82\% | 82\% |
| 50-54 | 9 | 43,042 | 0.0002 | 0.04\% | 0.04\% | 17.2 | 17.2 | 52\% | 52\% |
| 55-59 | 9 | 37,286 | 0.0002 | 0.04\% | 0.04\% | 14.9 | 14.9 | 60\% | 60\% |
| 60-64 | 4 | 24,155 | 0.0002 | 0.04\% | 0.04\% | 9.7 | 9.7 | 41\% | 41\% |
| 65-69 | 1 | 8,795 | 0.0001 | 0.04\% | 0.04\% | 3.5 | 3.5 | 28\% | 28\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 14 | 0.0000 | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 66 | 226,453 |  |  |  | 90.6 | 90.6 | 73\% | 73\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

|  | TABLE 10B GROUPED |  |  | Assumed Probability $\quad \begin{gathered}\text { 4-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered} \quad$ Actual/Expected |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Disabilities | Total Exposed | Actual Rate $(2) /(3)$ | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 1,911 | 0.0000 | 0.02\% | 0.02\% | 0.4 | 0.4 | 0\% | 0\% |
| 25-29 | 0 | 12,609 | 0.0000 | 0.02\% | 0.02\% | 2.5 | 2.5 | 0\% | 0\% |
| 30-34 | 3 | 21,688 | 0.0001 | 0.02\% | 0.02\% | 4.3 | 4.3 | 69\% | 69\% |
| 35-39 | 4 | 27,512 | 0.0001 | 0.02\% | 0.02\% | 5.5 | 5.5 | 73\% | 73\% |
| 40-44 | 8 | 38,177 | 0.0002 | 0.02\% | 0.02\% | 7.6 | 7.6 | 105\% | 105\% |
| 45-49 | 16 | 49,093 | 0.0003 | 0.02\% | 0.02\% | 9.8 | 9.8 | 163\% | 163\% |
| 50-54 | 9 | 52,090 | 0.0002 | 0.02\% | 0.02\% | 10.4 | 10.4 | 86\% | 86\% |
| 55-59 | 7 | 43,131 | 0.0002 | 0.02\% | 0.02\% | 8.6 | 8.6 | 81\% | 81\% |
| 60-64 | 2 | 28,716 | 0.0001 | 0.02\% | 0.02\% | 5.7 | 5.7 | 35\% | 35\% |
| 65-69 | 0 | 9,413 | 0.0000 | 0.02\% | 0.02\% | 1.9 | 1.9 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 12 | 0.0000 | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 49 | 284,352 |  |  |  | 56.9 | 56.9 | 86\% | 86\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL
ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

|  | TABLE 10C GROUPED |  |  | Assumed Probability $\quad \begin{gathered}\text { 4-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered} \quad$ Actual/Expected |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Disabilities | Total Exposed | Actual Rate $(2) /(3)$ | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 4,316 | 0.0000 | 0.03\% | 0.03\% | 1.3 | 1.3 | 0\% | 0\% |
| 25-29 | 0 | 21,791 | 0.0000 | 0.03\% | 0.03\% | 6.2 | 6.2 | 0\% | 0\% |
| 30-34 | 7 | 36,049 | 0.0002 | 0.03\% | 0.03\% | 10.1 | 10.1 | 69\% | 69\% |
| 35-39 | 20 | 46,501 | 0.0004 | 0.03\% | 0.03\% | 13.1 | 13.1 | 153\% | 153\% |
| 40-44 | 18 | 66,609 | 0.0003 | 0.03\% | 0.03\% | 19.0 | 19.0 | 95\% | 95\% |
| 45-49 | 29 | 88,885 | 0.0003 | 0.03\% | 0.03\% | 25.7 | 25.7 | 113\% | 113\% |
| 50-54 | 18 | 95,132 | 0.0002 | 0.03\% | 0.03\% | 27.6 | 27.6 | 65\% | 65\% |
| 55-59 | 16 | 80,417 | 0.0002 | 0.03\% | 0.03\% | 23.5 | 23.5 | 68\% | 68\% |
| 60-64 | 6 | 52,871 | 0.0001 | 0.03\% | 0.03\% | 15.4 | 15.4 | 39\% | 39\% |
| 65-69 | 1 | 18,208 | 0.0001 | 0.03\% | 0.03\% | 5.4 | 5.4 | 19\% | 19\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 26 | 0.0000 | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 115 | 510,805 |  |  |  | 147.4 | 147.4 | 78\% | 78\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL aCCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN

|  | TABLE 10A |  |  | Assen $\begin{gathered}\text { 8-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 124 | 0.0000 | 0.04\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 351 | 0.0000 | 0.04\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 22 | 0 | 695 | 0.0000 | 0.04\% | 0.04\% | 0.3 | 0.3 | 0\% | 0\% |
| 23 | 0 | 1,163 | 0.0000 | 0.04\% | 0.04\% | 0.5 | 0.5 | 0\% | 0\% |
| 24 | 0 | 1,757 | 0.0000 | 0.04\% | 0.04\% | 0.7 | 0.7 | 0\% | 0\% |
| 25 | 0 | 2,363 | 0.0000 | 0.04\% | 0.04\% | 0.9 | 0.9 | 0\% | 0\% |
| 26 | 0 | 2,908 | 0.0000 | 0.04\% | 0.04\% | 1.2 | 1.2 | 0\% | 0\% |
| 27 | 1 | 3,389 | 0.0003 | 0.04\% | 0.04\% | 1.4 | 1.4 | 74\% | 74\% |
| 28 | 0 | 3,821 | 0.0000 | 0.04\% | 0.04\% | 1.5 | 1.5 | 0\% | 0\% |
| 29 | 0 | 4,184 | 0.0000 | 0.04\% | 0.04\% | 1.7 | 1.7 | 0\% | 0\% |
| 30 | 0 | 4,629 | 0.0000 | 0.04\% | 0.04\% | 1.9 | 1.9 | 0\% | 0\% |
| 31 | 4 | 4,991 | 0.0008 | 0.04\% | 0.04\% | 2.0 | 2.0 | 200\% | 200\% |
| 32 | 1 | 5,322 | 0.0002 | 0.04\% | 0.04\% | 2.1 | 2.1 | 47\% | 47\% |
| 33 | 0 | 5,747 | 0.0000 | 0.04\% | 0.04\% | 2.3 | 2.3 | 0\% | 0\% |
| 34 | 3 | 6,166 | 0.0005 | 0.04\% | 0.04\% | 2.5 | 2.5 | 122\% | 122\% |
| 35 | 5 | 6,824 | 0.0007 | 0.04\% | 0.04\% | 2.7 | 2.7 | 183\% | 183\% |
| 36 | 5 | 7,452 | 0.0007 | 0.04\% | 0.04\% | 3.0 | 3.0 | 168\% | 168\% |
| 37 | 7 | 8,224 | 0.0009 | 0.04\% | 0.04\% | 3.3 | 3.3 | 213\% | 213\% |
| 38 | 5 | 9,073 | 0.0006 | 0.04\% | 0.04\% | 3.6 | 3.6 | 138\% | 138\% |
| 39 | 5 | 9,878 | 0.0005 | 0.04\% | 0.04\% | 4.0 | 4.0 | 127\% | 127\% |
| 40 | 9 | 10,868 | 0.0008 | 0.04\% | 0.04\% | 4.3 | 4.3 | 207\% | 207\% |
| 41 | 5 | 11,775 | 0.0004 | 0.04\% | 0.04\% | 4.7 | 4.7 | 106\% | 106\% |
| 42 | 8 | 12,717 | 0.0006 | 0.04\% | 0.04\% | 5.1 | 5.1 | 157\% | 157\% |
| 43 | 6 | 13,680 | 0.0004 | 0.04\% | 0.04\% | 5.5 | 5.5 | 110\% | 110\% |
| 44 | 3 | 14,538 | 0.0002 | 0.04\% | 0.04\% | 5.8 | 5.8 | 52\% | 52\% |
| 45 | 11 | 15,314 | 0.0007 | 0.04\% | 0.04\% | 6.1 | 6.1 | 180\% | 180\% |
| 46 | 9 | 15,971 | 0.0006 | 0.04\% | 0.04\% | 6.4 | 6.4 | 141\% | 141\% |
| 47 | 8 | 16,520 | 0.0005 | 0.04\% | 0.04\% | 6.6 | 6.6 | 121\% | 121\% |
| 48 | 7 | 16,885 | 0.0004 | 0.04\% | 0.04\% | 6.8 | 6.8 | 104\% | 104\% |
| 49 | 6 | 17,144 | 0.0003 | 0.04\% | 0.04\% | 6.9 | 6.9 | 87\% | 87\% |
| 50 | 6 | 17,276 | 0.0003 | 0.04\% | 0.04\% | 6.9 | 6.9 | 87\% | 87\% |
| 51 | 3 | 17,035 | 0.0002 | 0.04\% | 0.04\% | 6.8 | 6.8 | 44\% | 44\% |
| 52 | 6 | 16,843 | 0.0004 | 0.04\% | 0.04\% | 6.7 | 6.7 | 89\% | 89\% |
| 53 | 7 | 16,567 | 0.0004 | 0.04\% | 0.04\% | 6.6 | 6.6 | 106\% | 106\% |
| 54 | 6 | 16,257 | 0.0004 | 0.04\% | 0.04\% | 6.5 | 6.5 | 92\% | 92\% |
| 55 | 7 | 15,799 | 0.0004 | 0.04\% | 0.04\% | 6.3 | 6.3 | 111\% | 111\% |
| 56 | 4 | 14,853 | 0.0003 | 0.04\% | 0.04\% | 5.9 | 5.9 | 67\% | 67\% |
| 57 | 2 | 13,929 | 0.0001 | 0.04\% | 0.04\% | 5.6 | 5.6 | 36\% | 36\% |
| 58 | 5 | 12,899 | 0.0004 | 0.04\% | 0.04\% | 5.2 | 5.2 | 97\% | 97\% |
| 59 | 5 | 11,845 | 0.0004 | 0.04\% | 0.04\% | 4.7 | 4.7 | 106\% | 106\% |
| 60 | 2 | 10,850 | 0.0002 | 0.04\% | 0.04\% | 4.3 | 4.3 | 46\% | 46\% |
| 61 | 2 | 9,910 | 0.0002 | 0.04\% | 0.04\% | 4.0 | 4.0 | 50\% | 50\% |
| 62 | 4 | 8,863 | 0.0005 | 0.04\% | 0.04\% | 3.5 | 3.5 | 113\% | 113\% |
| 63 | 3 | 6,887 | 0.0004 | 0.04\% | 0.04\% | 2.8 | 2.8 | 109\% | 109\% |
| 64 | 2 | 5,538 | 0.0004 | 0.04\% | 0.04\% | 2.2 | 2.2 | 90\% | 90\% |
| 65 | 3 | 4,534 | 0.0007 | 0.04\% | 0.04\% | 1.8 | 1.8 | 165\% | 165\% |
| 66 | 0 | 3,680 | 0.0000 | 0.04\% | 0.04\% | 1.5 | 1.5 | 0\% | 0\% |
| 67 | 0 | 2,912 | 0.0000 | 0.04\% | 0.04\% | 1.2 | 1.2 | 0\% | 0\% |
| 68 | 1 | 2,288 | 0.0004 | 0.04\% | 0.04\% | 0.9 | 0.9 | 109\% | 109\% |
| 69 | 0 | 1,808 | 0.0000 | 0.04\% | 0.04\% | 0.7 | 0.7 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 22 | 0.0000 | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 176 | 445,068 |  |  |  | 178.0 | 178.0 | 99\% | 99\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL accidental disability experience of active members WOMEN


NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL aCcidental disability experience of active members MEN AND WOMEN

|  | TABLE 10C |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 198 | 0.0000 | 0.03\% | 0.03\% | 0.1 | 0.1 | 0\% | 0\% |
| 21 | 0 | 546 | 0.0000 | 0.03\% | 0.03\% | 0.2 | 0.2 | 0\% | 0\% |
| 22 | 0 | 1,156 | 0.0000 | 0.03\% | 0.03\% | 0.4 | 0.4 | 0\% | 0\% |
| 23 | 0 | 2,123 | 0.0000 | 0.03\% | 0.03\% | 0.7 | 0.7 | 0\% | 0\% |
| 24 | 0 | 3,505 | 0.0000 | 0.03\% | 0.03\% | 1.1 | 1.1 | 0\% | 0\% |
| 25 | 0 | 5,160 | 0.0000 | 0.03\% | 0.03\% | 1.5 | 1.5 | 0\% | 0\% |
| 26 | 0 | 6,677 | 0.0000 | 0.03\% | 0.03\% | 1.9 | 1.9 | 0\% | 0\% |
| 27 | 1 | 8,025 | 0.0001 | 0.03\% | 0.03\% | 2.3 | 2.3 | 44\% | 44\% |
| 28 | 0 | 9,480 | 0.0000 | 0.03\% | 0.03\% | 2.7 | 2.7 | 0\% | 0\% |
| 29 | 0 | 10,537 | 0.0000 | 0.03\% | 0.03\% | 2.9 | 2.9 | 0\% | 0\% |
| 30 | 2 | 11,587 | 0.0002 | 0.03\% | 0.03\% | 3.2 | 3.2 | 62\% | 62\% |
| 31 | 5 | 12,522 | 0.0004 | 0.03\% | 0.03\% | 3.5 | 3.5 | 143\% | 143\% |
| 32 | 1 | 13,360 | 0.0001 | 0.03\% | 0.03\% | 3.7 | 3.7 | 27\% | 27\% |
| 33 | 3 | 14,485 | 0.0002 | 0.03\% | 0.03\% | 4.0 | 4.0 | 74\% | 74\% |
| 34 | 3 | 15,494 | 0.0002 | 0.03\% | 0.03\% | 4.3 | 4.3 | 69\% | 69\% |
| 35 | 7 | 16,790 | 0.0004 | 0.03\% | 0.03\% | 4.7 | 4.7 | 148\% | 148\% |
| 36 | 8 | 18,094 | 0.0004 | 0.03\% | 0.03\% | 5.1 | 5.1 | 157\% | 157\% |
| 37 | 9 | 19,664 | 0.0005 | 0.03\% | 0.03\% | 5.6 | 5.6 | 161\% | 161\% |
| 38 | 8 | 21,539 | 0.0004 | 0.03\% | 0.03\% | 6.1 | 6.1 | 131\% | 131\% |
| 39 | 6 | 23,366 | 0.0003 | 0.03\% | 0.03\% | 6.6 | 6.6 | 90\% | 90\% |
| 40 | 11 | 25,355 | 0.0004 | 0.03\% | 0.03\% | 7.2 | 7.2 | 152\% | 152\% |
| 41 | 9 | 27,192 | 0.0003 | 0.03\% | 0.03\% | 7.8 | 7.8 | 115\% | 115\% |
| 42 | 18 | 28,975 | 0.0006 | 0.03\% | 0.03\% | 8.3 | 8.3 | 216\% | 216\% |
| 43 | 9 | 30,981 | 0.0003 | 0.03\% | 0.03\% | 8.9 | 8.9 | 101\% | 101\% |
| 44 | 8 | 32,632 | 0.0002 | 0.03\% | 0.03\% | 9.4 | 9.4 | 85\% | 85\% |
| 45 | 14 | 34,246 | 0.0004 | 0.03\% | 0.03\% | 9.9 | 9.9 | 141\% | 141\% |
| 46 | 15 | 35,419 | 0.0004 | 0.03\% | 0.03\% | 10.3 | 10.3 | 146\% | 146\% |
| 47 | 13 | 36,507 | 0.0004 | 0.03\% | 0.03\% | 10.6 | 10.6 | 123\% | 123\% |
| 48 | 14 | 37,190 | 0.0004 | 0.03\% | 0.03\% | 10.8 | 10.8 | 129\% | 129\% |
| 49 | 12 | 37,498 | 0.0003 | 0.03\% | 0.03\% | 10.9 | 10.9 | 110\% | 110\% |
| 50 | 13 | 37,600 | 0.0003 | 0.03\% | 0.03\% | 11.0 | 11.0 | 118\% | 118\% |
| 51 | 6 | 37,058 | 0.0002 | 0.03\% | 0.03\% | 10.8 | 10.8 | 55\% | 55\% |
| 52 | 12 | 36,675 | 0.0003 | 0.03\% | 0.03\% | 10.7 | 10.7 | 112\% | 112\% |
| 53 | 9 | 35,907 | 0.0003 | 0.03\% | 0.03\% | 10.5 | 10.5 | 86\% | 86\% |
| 54 | 7 | 35,193 | 0.0002 | 0.03\% | 0.03\% | 10.3 | 10.3 | 68\% | 68\% |
| 55 | 11 | 34,034 | 0.0003 | 0.03\% | 0.03\% | 10.0 | 10.0 | 110\% | 110\% |
| 56 | 5 | 32,018 | 0.0002 | 0.03\% | 0.03\% | 9.4 | 9.4 | 53\% | 53\% |
| 57 | 3 | 30,142 | 0.0001 | 0.03\% | 0.03\% | 8.8 | 8.8 | 34\% | 34\% |
| 58 | 10 | 27,971 | 0.0004 | 0.03\% | 0.03\% | 8.2 | 8.2 | 122\% | 122\% |
| 59 | 8 | 25,844 | 0.0003 | 0.03\% | 0.03\% | 7.5 | 7.5 | 106\% | 106\% |
| 60 | 2 | 23,693 | 0.0001 | 0.03\% | 0.03\% | 6.9 | 6.9 | 29\% | 29\% |
| 61 | 2 | 21,728 | 0.0001 | 0.03\% | 0.03\% | 6.3 | 6.3 | 32\% | 32\% |
| 62 | 7 | 19,463 | 0.0004 | 0.03\% | 0.03\% | 5.7 | 5.7 | 124\% | 124\% |
| 63 | 5 | 15,213 | 0.0003 | 0.03\% | 0.03\% | 4.4 | 4.4 | 113\% | 113\% |
| 64 | 2 | 12,044 | 0.0002 | 0.03\% | 0.03\% | 3.5 | 3.5 | 57\% | 57\% |
| 65 | 3 | 9,683 | 0.0003 | 0.03\% | 0.03\% | 2.8 | 2.8 | 106\% | 106\% |
| 66 | 1 | 7,753 | 0.0001 | 0.03\% | 0.03\% | 2.3 | 2.3 | 44\% | 44\% |
| 67 | 0 | 5,958 | 0.0000 | 0.03\% | 0.03\% | 1.8 | 1.8 | 0\% | 0\% |
| 68 | 1 | 4,640 | 0.0002 | 0.03\% | 0.03\% | 1.4 | 1.4 | 72\% | 72\% |
| 69 | 1 | 3,592 | 0.0003 | 0.03\% | 0.03\% | 1.1 | 1.1 | 93\% | 93\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 39 | 0.0000 | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 284 | 996,551 |  |  |  | 288.3 | 288.3 | 99\% | 99\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL
ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS
MEN

|  | TABLE 10A GROUPED |  |  | Assumed Probability $\quad \begin{gathered}\text { 8-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered} \quad$ Actual/Expected |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | $\begin{gathered} \text { Proposed } \\ (8) /(3) \\ \hline \end{gathered}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 4,090 | 0.0000 | 0.04\% | 0.04\% | 1.6 | 1.6 | 0\% | 0\% |
| 25-29 | 1 | 16,665 | 0.0001 | 0.04\% | 0.04\% | 6.7 | 6.7 | 15\% | 15\% |
| 30-34 | 8 | 26,855 | 0.0003 | 0.04\% | 0.04\% | 10.7 | 10.7 | 74\% | 74\% |
| 35-39 | 27 | 41,451 | 0.0007 | 0.04\% | 0.04\% | 16.6 | 16.6 | 163\% | 163\% |
| 40-44 | 31 | 63,578 | 0.0005 | 0.04\% | 0.04\% | 25.4 | 25.4 | 122\% | 122\% |
| 45-49 | 41 | 81,834 | 0.0005 | 0.04\% | 0.04\% | 32.7 | 32.7 | 125\% | 125\% |
| 50-54 | 28 | 83,978 | 0.0003 | 0.04\% | 0.04\% | 33.6 | 33.6 | 83\% | 83\% |
| 55-59 | 23 | 69,325 | 0.0003 | 0.04\% | 0.04\% | 27.7 | 27.7 | 83\% | 83\% |
| 60-64 | 13 | 42,048 | 0.0003 | 0.04\% | 0.04\% | 16.8 | 16.8 | 77\% | 77\% |
| 65-69 | 4 | 15,222 | 0.0003 | 0.04\% | 0.04\% | 6.1 | 6.1 | 66\% | 66\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 22 | 0.0000 | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 176 | 445,068 |  |  |  | 178.0 | 178.0 | 99\% | 99\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

|  | TABLE 10B GROUPED |  |  | Assumed Probability $\quad \begin{gathered}\text { 8-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered} \quad \begin{aligned} & \text { Actual/Expected }\end{aligned}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | Actual Rate $(2) /(3)$ | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 3,438 | 0.0000 | 0.02\% | 0.02\% | 0.7 | 0.7 | 0\% | 0\% |
| 25-29 | 0 | 23,214 | 0.0000 | 0.02\% | 0.02\% | 4.6 | 4.6 | 0\% | 0\% |
| 30-34 | 6 | 40,593 | 0.0001 | 0.02\% | 0.02\% | 8.1 | 8.1 | 74\% | 74\% |
| 35-39 | 11 | 58,002 | 0.0002 | 0.02\% | 0.02\% | 11.6 | 11.6 | 95\% | 95\% |
| 40-44 | 24 | 81,557 | 0.0003 | 0.02\% | 0.02\% | 16.3 | 16.3 | 147\% | 147\% |
| 45-49 | 27 | 99,026 | 0.0003 | 0.02\% | 0.02\% | 19.8 | 19.8 | 136\% | 136\% |
| 50-54 | 19 | 98,455 | 0.0002 | 0.02\% | 0.02\% | 19.7 | 19.7 | 96\% | 96\% |
| 55-59 | 14 | 80,684 | 0.0002 | 0.02\% | 0.02\% | 16.1 | 16.1 | 87\% | 87\% |
| 60-64 | 5 | 50,093 | 0.0001 | 0.02\% | 0.02\% | 10.0 | 10.0 | 50\% | 50\% |
| 65-69 | 2 | 16,404 | 0.0001 | 0.02\% | 0.02\% | 3.3 | 3.3 | 61\% | 61\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 17 | 0.0000 | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 108 | 551,483 |  |  |  | 110.3 | 110.3 | 98\% | 98\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL
ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Age | TABLE 10C GROUPED |  |  | Assumed Probability |  | 8-YEAR PERIOD ENDING 6/30/2011 <br> Expected Disabilities Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Disabilities | Total Exposed | Actual Rate <br> (2) / (3) | Expected $(7) /(3)$ | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 7,528 | 0.0000 | 0.03\% | 0.03\% | 2.3 | 2.3 | 0\% | 0\% |
| 25-29 | 1 | 39,879 | 0.0000 | 0.03\% | 0.03\% | 11.3 | 11.3 | 9\% | 9\% |
| 30-34 | 14 | 67,448 | 0.0002 | 0.03\% | 0.03\% | 18.9 | 18.9 | 74\% | 74\% |
| 35-39 | 38 | 99,453 | 0.0004 | 0.03\% | 0.03\% | 28.2 | 28.2 | 135\% | 135\% |
| 40-44 | 55 | 145,135 | 0.0004 | 0.03\% | 0.03\% | 41.7 | 41.7 | 132\% | 132\% |
| 45-49 | 68 | 180,860 | 0.0004 | 0.03\% | 0.03\% | 52.5 | 52.5 | 129\% | 129\% |
| 50-54 | 47 | 182,433 | 0.0003 | 0.03\% | 0.03\% | 53.3 | 53.3 | 88\% | 88\% |
| 55-59 | 37 | 150,009 | 0.0002 | 0.03\% | 0.03\% | 43.9 | 43.9 | 84\% | 84\% |
| 60-64 | 18 | 92,141 | 0.0002 | 0.03\% | 0.03\% | 26.8 | 26.8 | 67\% | 67\% |
| 65-69 | 6 | 31,626 | 0.0002 | 0.03\% | 0.03\% | 9.4 | 9.4 | 64\% | 64\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 39 | 0.0000 | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 284 | 996,551 |  |  |  | 288.3 | 288.3 | 99\% | 99\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Plan <br> Year <br> Ending <br> June 30, | TABLE 10D <br> Life Years Exposed | Actual Disabilities | Expected Disabilities | 10-YEAR PERIOD ENDING 6/30/2013 <br> Disability Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / Expected | $\begin{aligned} & \hline \text { Actual } \\ & \text { (3) / (2) } \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 119,180 | 49 | 34.9 | 141\% | 0.04\% | 0.03\% |
| 2005 | 120,147 | 34 | 35.0 | 97\% | 0.03\% | 0.03\% |
| 2006 | 122,336 | 44 | 35.6 | 124\% | 0.04\% | 0.03\% |
| 2007 | 124,083 | 42 | 36.1 | 116\% | 0.03\% | 0.03\% |
| 2008 | 125,340 | 40 | 36.4 | 110\% | 0.03\% | 0.03\% |
| 2009 | 127,376 | 31 | 36.8 | 84\% | 0.02\% | 0.03\% |
| 2010 | 128,850 | 25 | 37.2 | 67\% | 0.02\% | 0.03\% |
| 2011 | 129,239 | 19 | 37.3 | 51\% | 0.01\% | 0.03\% |
| 2012 | 128,229 | 20 | 37.0 | 54\% | 0.02\% | 0.03\% |
| 2013 | 133,596 | 11 | 38.5 | 29\% | 0.01\% | 0.03\% |
| Total | 1,258,376 | 315 | 364.8 | 86\% | 0.03\% | 0.03\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL <br> TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS <br> MEN AND WOMEN

TABLE 11A

| Service | Life Years Exposed | Total Salary BOY |  | Actual Salary EOY |  | $\begin{gathered} \text { Expected Salary } \\ \text { EOY } \\ \hline \end{gathered}$ |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 16,283 | \$ | 855,249,130 | \$ | 901,056,057 | \$ | 932,221,552 | 60\% | 5.36\% | 9.00\% |
| 1 | 25,455 |  | 1,301,138,803 |  | 1,369,374,370 |  | 1,405,229,907 | 66\% | 5.24\% | 8.00\% |
| 2 | 29,171 |  | 1,539,291,775 |  | 1,595,430,793 |  | 1,647,042,199 | 52\% | 3.65\% | 7.00\% |
| 3 | 27,678 |  | 1,506,163,713 |  | 1,545,003,879 |  | 1,596,533,536 | 43\% | 2.58\% | 6.00\% |
| 4 | 27,979 |  | 1,553,253,962 |  | 1,586,300,031 |  | 1,638,682,930 | 39\% | 2.13\% | 5.50\% |
| 5 | 24,870 |  | 1,414,697,432 |  | 1,445,172,744 |  | 1,485,432,304 | 43\% | 2.15\% | 5.00\% |
| 6 | 21,802 |  | 1,263,116,849 |  | 1,285,357,012 |  | 1,325,009,575 | 36\% | 1.76\% | 4.90\% |
| 7 | 21,428 |  | 1,271,350,425 |  | 1,294,729,342 |  | 1,332,375,245 | 38\% | 1.84\% | 4.80\% |
| 8 | 19,885 |  | 1,177,990,378 |  | 1,199,388,474 |  | 1,233,355,926 | 39\% | 1.82\% | 4.70\% |
| 9 | 19,550 |  | 1,172,988,799 |  | 1,192,694,790 |  | 1,226,946,284 | 37\% | 1.68\% | 4.60\% |
| 10 | 19,674 |  | 1,190,045,751 |  | 1,208,692,229 |  | 1,243,597,810 | 35\% | 1.57\% | 4.50\% |
| 11 | 18,252 |  | 1,123,033,310 |  | 1,140,372,159 |  | 1,173,569,809 | 34\% | 1.54\% | 4.50\% |
| 12 | 16,425 |  | 1,035,336,972 |  | 1,052,018,444 |  | 1,081,927,136 | 36\% | 1.61\% | 4.50\% |
| 13 | 14,039 |  | 912,253,573 |  | 925,047,931 |  | 953,304,984 | 31\% | 1.40\% | 4.50\% |
| 14 | 13,966 |  | 927,495,030 |  | 941,642,417 |  | 969,232,306 | 34\% | 1.53\% | 4.50\% |
| 15 | 13,354 |  | 901,854,386 |  | 918,422,892 |  | 942,437,833 | 41\% | 1.84\% | 4.50\% |
| 16 | 13,818 |  | 948,895,383 |  | 962,789,641 |  | 991,121,228 | 33\% | 1.46\% | 4.45\% |
| 17 | 14,322 |  | 985,666,521 |  | 998,835,516 |  | 1,029,035,848 | 30\% | 1.34\% | 4.40\% |
| 18 | 13,450 |  | 922,786,282 |  | 937,059,512 |  | 962,927,485 | 36\% | 1.55\% | 4.35\% |
| 19 | 13,406 |  | 914,632,960 |  | 927,528,699 |  | 953,962,177 | 33\% | 1.41\% | 4.30\% |
| 20 | 12,742 |  | 862,356,254 |  | 872,927,605 |  | 899,006,395 | 29\% | 1.23\% | 4.25\% |
| 21 | 12,027 |  | 820,924,745 |  | 834,418,280 |  | 855,403,584 | 39\% | 1.64\% | 4.20\% |
| 22 | 11,675 |  | 802,547,398 |  | 815,649,227 |  | 835,853,115 | 39\% | 1.63\% | 4.15\% |
| 23 | 10,848 |  | 748,155,297 |  | 758,956,094 |  | 778,829,664 | 35\% | 1.44\% | 4.10\% |
| 24 | 9,577 |  | 662,279,125 |  | 674,108,544 |  | 689,101,430 | 44\% | 1.79\% | 4.05\% |
| 25 | 8,287 |  | 577,910,340 |  | 584,418,618 |  | 601,026,754 | 28\% | 1.13\% | 4.00\% |
| 26 | 6,783 |  | 475,157,026 |  | 481,452,447 |  | 494,163,307 | 33\% | 1.32\% | 4.00\% |
| 27 | 5,627 |  | 391,930,165 |  | 397,298,754 |  | 407,607,372 | 34\% | 1.37\% | 4.00\% |
| 28 | 5,098 |  | 354,420,165 |  | 360,016,360 |  | 368,596,972 | 39\% | 1.58\% | 4.00\% |
| 29 | 4,624 |  | 318,088,667 |  | 322,752,454 |  | 330,812,214 | 37\% | 1.47\% | 4.00\% |
| 30+ | 17,716 |  | 1,281,626,908 |  | 1,296,163,681 |  | 1,332,891,984 | 28\% | 1.13\% | 4.00\% |
| Total | 489,811 |  | 30,212,637,524 |  | 30,825,078,996 |  | 31,717,238,863 | 41\% | 2.03\% | 4.98\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL <br> TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS <br> MEN AND WOMEN

TABLE 11A

| Service | Life Years Exposed | Total Salary BOY |  | Actual Salary EOY |  | $\begin{gathered} \text { Proposed Salary } \\ \text { EOY } \\ \hline \end{gathered}$ |  | Actual / <br> Proposed | Increase \% |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  |  | (5) | (6) | (7) | (8) |  |
| 0 | 16,283 | \$ | 855,249,130 | \$ | 901,056,057 | \$ | 930,083,429 | 61\% | 5.36\% |  | 8.75\% |
| 1 | 25,455 |  | 1,301,138,803 |  | 1,369,374,370 |  | 1,382,459,978 | 84\% | 5.24\% |  | 6.25\% |
| 2 | 29,171 |  | 1,539,291,775 |  | 1,595,430,793 |  | 1,623,952,823 | 66\% | 3.65\% |  | 5.50\% |
| 3 | 27,678 |  | 1,506,163,713 |  | 1,545,003,879 |  | 1,570,175,671 | 61\% | 2.58\% |  | 4.25\% |
| 4 | 27,979 |  | 1,553,253,962 |  | 1,586,300,031 |  | 1,615,384,120 | 53\% | 2.13\% |  | 4.00\% |
| 5 | 24,870 |  | 1,414,697,432 |  | 1,445,172,744 |  | 1,481,895,560 | 45\% | 2.15\% |  | 4.75\% |
| 6 | 21,802 |  | 1,263,116,849 |  | 1,285,357,012 |  | 1,321,851,782 | 38\% | 1.76\% |  | 4.65\% |
| 7 | 21,428 |  | 1,271,350,425 |  | 1,294,729,342 |  | 1,329,196,869 | 40\% | 1.84\% |  | 4.55\% |
| 8 | 19,885 |  | 1,177,990,378 |  | 1,199,388,474 |  | 1,230,410,950 | 41\% | 1.82\% |  | 4.45\% |
| 9 | 19,550 |  | 1,172,988,799 |  | 1,192,694,790 |  | 1,224,013,812 | 39\% | 1.68\% |  | 4.35\% |
| 10 | 19,674 |  | 1,190,045,751 |  | 1,208,692,229 |  | 1,240,622,695 | 37\% | 1.57\% |  | 4.25\% |
| 11 | 18,252 |  | 1,123,033,310 |  | 1,140,372,159 |  | 1,170,762,226 | 36\% | 1.54\% |  | 4.25\% |
| 12 | 16,425 |  | 1,035,336,972 |  | 1,052,018,444 |  | 1,079,338,793 | 38\% | 1.61\% |  | 4.25\% |
| 13 | 14,039 |  | 912,253,573 |  | 925,047,931 |  | 951,024,350 | 33\% | 1.40\% |  | 4.25\% |
| 14 | 13,966 |  | 927,495,030 |  | 941,642,417 |  | 966,913,569 | 36\% | 1.53\% |  | 4.25\% |
| 15 | 13,354 |  | 901,854,386 |  | 918,422,892 |  | 940,183,197 | 43\% | 1.84\% |  | 4.25\% |
| 16 | 13,818 |  | 948,895,383 |  | 962,789,641 |  | 988,748,989 | 35\% | 1.46\% |  | 4.20\% |
| 17 | 14,322 |  | 985,666,521 |  | 998,835,516 |  | 1,026,571,682 | 32\% | 1.34\% |  | 4.15\% |
| 18 | 13,450 |  | 922,786,282 |  | 937,059,512 |  | 960,620,520 | 38\% | 1.55\% |  | 4.10\% |
| 19 | 13,406 |  | 914,632,960 |  | 927,528,699 |  | 951,675,595 | 35\% | 1.41\% |  | 4.05\% |
| 20 | 12,742 |  | 862,356,254 |  | 872,927,605 |  | 896,850,504 | 31\% | 1.23\% |  | 4.00\% |
| 21 | 12,027 |  | 820,924,745 |  | 834,418,280 |  | 853,351,272 | 42\% | 1.64\% |  | 3.95\% |
| 22 | 11,675 |  | 802,547,398 |  | 815,649,227 |  | 833,846,747 | 42\% | 1.63\% |  | 3.90\% |
| 23 | 10,848 |  | 748,155,297 |  | 758,956,094 |  | 776,959,276 | 37\% | 1.44\% |  | 3.85\% |
| 24 | 9,577 |  | 662,279,125 |  | 674,108,544 |  | 687,445,732 | 47\% | 1.79\% |  | 3.80\% |
| 25 | 8,287 |  | 577,910,340 |  | 584,418,618 |  | 599,581,978 | 30\% | 1.13\% |  | 3.75\% |
| 26 | 6,783 |  | 475,157,026 |  | 481,452,447 |  | 492,975,414 | 35\% | 1.32\% |  | 3.75\% |
| 27 | 5,627 |  | 391,930,165 |  | 397,298,754 |  | 406,627,546 | 37\% | 1.37\% |  | 3.75\% |
| 28 | 5,098 |  | 354,420,165 |  | 360,016,360 |  | 367,710,921 | 42\% | 1.58\% |  | 3.75\% |
| 29 | 4,624 |  | 318,088,667 |  | 322,752,454 |  | 330,016,992 | 39\% | 1.47\% |  | 3.75\% |
| 30+ | 17,716 |  | 1,281,626,908 |  | 1,296,163,681 |  | 1,329,687,917 | 30\% | 1.13\% |  | 3.75\% |
| Total | 489,811 |  | 30,212,637,524 |  | 30,825,078,996 |  | 31,560,940,909 | 45\% | 2.03\% |  | 4.46\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL <br> MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS <br> MEN AND WOMEN

TABLE 11B 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Total Salary BOY |  | Estimated Actual <br> Merit Salary EOY |  | Expected Merit Salary EOY |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 16,283 | \$ | 855,249,130 | \$ | 916,323,606 | \$ | 906,564,078 | 119\% | 7.14\% | 6.00\% |
| 1 | 25,455 |  | 1,301,138,803 |  | 1,352,053,659 |  | 1,366,195,743 | 78\% | 3.91\% | 5.00\% |
| 2 | 29,171 |  | 1,539,291,775 |  | 1,592,202,642 |  | 1,600,863,446 | 86\% | 3.44\% | 4.00\% |
| 3 | 27,678 |  | 1,506,163,713 |  | 1,542,010,632 |  | 1,551,348,624 | 79\% | 2.38\% | 3.00\% |
| 4 | 27,979 |  | 1,553,253,962 |  | 1,584,589,073 |  | 1,592,085,311 | 81\% | 2.02\% | 2.50\% |
| 5 | 24,870 |  | 1,414,697,432 |  | 1,440,765,303 |  | 1,442,991,381 | 92\% | 1.84\% | 2.00\% |
| 6 | 21,802 |  | 1,263,116,849 |  | 1,285,078,970 |  | 1,287,116,069 | 92\% | 1.74\% | 1.90\% |
| 7 | 21,428 |  | 1,271,350,425 |  | 1,293,379,499 |  | 1,294,234,733 | 96\% | 1.73\% | 1.80\% |
| 8 | 19,885 |  | 1,177,990,378 |  | 1,196,859,877 |  | 1,198,016,214 | 94\% | 1.60\% | 1.70\% |
| 9 | 19,550 |  | 1,172,988,799 |  | 1,190,303,201 |  | 1,191,756,620 | 92\% | 1.48\% | 1.60\% |
| 10 | 19,674 |  | 1,190,045,751 |  | 1,207,574,884 |  | 1,207,896,437 | 98\% | 1.47\% | 1.50\% |
| 11 | 18,252 |  | 1,123,033,310 |  | 1,138,654,030 |  | 1,139,878,810 | 93\% | 1.39\% | 1.50\% |
| 12 | 16,425 |  | 1,035,336,972 |  | 1,050,106,895 |  | 1,050,867,027 | 95\% | 1.43\% | 1.50\% |
| 13 | 14,039 |  | 912,253,573 |  | 925,145,636 |  | 925,937,377 | 94\% | 1.41\% | 1.50\% |
| 14 | 13,966 |  | 927,495,030 |  | 939,954,731 |  | 941,407,455 | 90\% | 1.34\% | 1.50\% |
| 15 | 13,354 |  | 901,854,386 |  | 916,302,064 |  | 915,382,202 | 107\% | 1.60\% | 1.50\% |
| 16 | 13,818 |  | 948,895,383 |  | 961,913,421 |  | 962,654,366 | 95\% | 1.37\% | 1.45\% |
| 17 | 14,322 |  | 985,666,521 |  | 997,643,099 |  | 999,465,852 | 87\% | 1.22\% | 1.40\% |
| 18 | 13,450 |  | 922,786,282 |  | 935,549,968 |  | 935,243,897 | 102\% | 1.38\% | 1.35\% |
| 19 | 13,406 |  | 914,632,960 |  | 926,092,766 |  | 926,523,188 | 96\% | 1.25\% | 1.30\% |
| 20 | 12,742 |  | 862,356,254 |  | 872,103,565 |  | 873,135,707 | 90\% | 1.13\% | 1.25\% |
| 21 | 12,027 |  | 820,924,745 |  | 831,918,828 |  | 830,775,842 | 112\% | 1.34\% | 1.20\% |
| 22 | 11,675 |  | 802,547,398 |  | 813,059,570 |  | 811,776,693 | 114\% | 1.31\% | 1.15\% |
| 23 | 10,848 |  | 748,155,297 |  | 756,336,483 |  | 756,385,005 | 99\% | 1.09\% | 1.10\% |
| 24 | 9,577 |  | 662,279,125 |  | 671,085,082 |  | 669,233,056 | 127\% | 1.33\% | 1.05\% |
| 25 | 8,287 |  | 577,910,340 |  | 582,924,586 |  | 583,689,443 | 87\% | 0.87\% | 1.00\% |
| 26 | 6,783 |  | 475,157,026 |  | 475,157,026 |  | 479,908,596 |  | 0.00\% | 1.00\% |
| 27 | 5,627 |  | 391,930,165 |  | 391,930,165 |  | 395,849,467 |  | 0.00\% | 1.00\% |
| 28 | 5,098 |  | 354,420,165 |  | 354,420,165 |  | 357,964,367 |  | 0.00\% | 1.00\% |
| 29 | 4,624 |  | 318,088,667 |  | 318,088,667 |  | 321,269,554 |  | 0.00\% | 1.00\% |
| 30+ | 17,716 |  | 1,281,626,908 |  | 1,281,626,908 |  | 1,294,443,177 |  | 0.00\% | 1.00\% |
| Total | 489,811 |  | 30,212,637,524 |  | 30,741,155,000 |  | 30,810,859,737 | 88\% | 1.75\% | 1.98\% |

The rates for expected merit salary increases are based on actual rates of increase for total salary, adjusted for inflation of $1.71 \%$.
Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL <br> MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS <br> MEN AND WOMEN

TABLE 11B

| Service | Life Years Exposed | Total Salary BOY |  | Estimated Actual <br> Merit Salary EOY |  | Proposed Merit Salary EOY |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 16,283 | \$ | 855,249,130 | \$ | 916,323,606 | \$ | 906,564,078 | 119\% | 7.14\% | 6.00\% |
| 1 | 25,455 |  | 1,301,138,803 |  | 1,352,053,659 |  | 1,346,678,661 | 112\% | 3.91\% | 3.50\% |
| 2 | 29,171 |  | 1,539,291,775 |  | 1,592,202,642 |  | 1,581,622,299 | 125\% | 3.44\% | 2.75\% |
| 3 | 27,678 |  | 1,506,163,713 |  | 1,542,010,632 |  | 1,528,756,169 | 159\% | 2.38\% | 1.50\% |
| 4 | 27,979 |  | 1,553,253,962 |  | 1,584,589,073 |  | 1,572,669,637 | 161\% | 2.02\% | 1.25\% |
| 5 | 24,870 |  | 1,414,697,432 |  | 1,440,765,303 |  | 1,442,991,381 | 92\% | 1.84\% | 2.00\% |
| 6 | 21,802 |  | 1,263,116,849 |  | 1,285,078,970 |  | 1,287,116,069 | 92\% | 1.74\% | 1.90\% |
| 7 | 21,428 |  | 1,271,350,425 |  | 1,293,379,499 |  | 1,294,234,733 | 96\% | 1.73\% | 1.80\% |
| 8 | 19,885 |  | 1,177,990,378 |  | 1,196,859,877 |  | 1,198,016,214 | 94\% | 1.60\% | 1.70\% |
| 9 | 19,550 |  | 1,172,988,799 |  | 1,190,303,201 |  | 1,191,756,620 | 92\% | 1.48\% | 1.60\% |
| 10 | 19,674 |  | 1,190,045,751 |  | 1,207,574,884 |  | 1,207,896,437 | 98\% | 1.47\% | 1.50\% |
| 11 | 18,252 |  | 1,123,033,310 |  | 1,138,654,030 |  | 1,139,878,810 | 93\% | 1.39\% | 1.50\% |
| 12 | 16,425 |  | 1,035,336,972 |  | 1,050,106,895 |  | 1,050,867,027 | 95\% | 1.43\% | 1.50\% |
| 13 | 14,039 |  | 912,253,573 |  | 925,145,636 |  | 925,937,377 | 94\% | 1.41\% | 1.50\% |
| 14 | 13,966 |  | 927,495,030 |  | 939,954,731 |  | 941,407,455 | 90\% | 1.34\% | 1.50\% |
| 15 | 13,354 |  | 901,854,386 |  | 916,302,064 |  | 915,382,202 | 107\% | 1.60\% | 1.50\% |
| 16 | 13,818 |  | 948,895,383 |  | 961,913,421 |  | 962,654,366 | 95\% | 1.37\% | 1.45\% |
| 17 | 14,322 |  | 985,666,521 |  | 997,643,099 |  | 999,465,852 | 87\% | 1.22\% | 1.40\% |
| 18 | 13,450 |  | 922,786,282 |  | 935,549,968 |  | 935,243,897 | 102\% | 1.38\% | 1.35\% |
| 19 | 13,406 |  | 914,632,960 |  | 926,092,766 |  | 926,523,188 | 96\% | 1.25\% | 1.30\% |
| 20 | 12,742 |  | 862,356,254 |  | 872,103,565 |  | 873,135,707 | 90\% | 1.13\% | 1.25\% |
| 21 | 12,027 |  | 820,924,745 |  | 831,918,828 |  | 830,775,842 | 112\% | 1.34\% | 1.20\% |
| 22 | 11,675 |  | 802,547,398 |  | 813,059,570 |  | 811,776,693 | 114\% | 1.31\% | 1.15\% |
| 23 | 10,848 |  | 748,155,297 |  | 756,336,483 |  | 756,385,005 | 99\% | 1.09\% | 1.10\% |
| 24 | 9,577 |  | 662,279,125 |  | 671,085,082 |  | 669,233,056 | 127\% | 1.33\% | 1.05\% |
| 25 | 8,287 |  | 577,910,340 |  | 582,924,586 |  | 583,689,443 | 87\% | 0.87\% | 1.00\% |
| 26 | 6,783 |  | 475,157,026 |  | 475,157,026 |  | 479,908,596 |  | 0.00\% | 1.00\% |
| 27 | 5,627 |  | 391,930,165 |  | 391,930,165 |  | 395,849,467 |  | 0.00\% | 1.00\% |
| 28 | 5,098 |  | 354,420,165 |  | 354,420,165 |  | 357,964,367 |  | 0.00\% | 1.00\% |
| 29 | 4,624 |  | 318,088,667 |  | 318,088,667 |  | 321,269,554 |  | 0.00\% | 1.00\% |
| $30+$ | 17,716 |  | 1,281,626,908 |  | 1,281,626,908 |  | 1,294,443,177 |  | 0.00\% | 1.00\% |
| Total | 489,811 |  | 30,212,637,524 |  | 30,741,155,000 |  | 30,730,093,378 | 102\% | 1.75\% | 1.71\% |

Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL <br> TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS <br> MEN AND WOMEN

TABLE 11A

| Service | Life Years Exposed | Total Salary BOY |  | Actual Salary EOY |  | $\begin{gathered} \text { Expected Salary } \\ \text { EOY } \\ \hline \end{gathered}$ |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 36,004 | \$ | 1,673,049,910 | \$ | 1,811,350,349 | \$ | 1,823,624,402 | 92\% | 8.27\% | 9.00\% |
| 1 | 69,252 |  | 3,232,433,724 |  | 3,457,708,891 |  | 3,491,028,422 | 87\% | 6.97\% | 8.00\% |
| 2 | 70,364 |  | 3,422,306,461 |  | 3,609,444,178 |  | 3,661,867,913 | 78\% | 5.47\% | 7.00\% |
| 3 | 67,484 |  | 3,384,995,575 |  | 3,534,183,570 |  | 3,588,095,310 | 73\% | 4.41\% | 6.00\% |
| 4 | 64,515 |  | 3,284,142,111 |  | 3,415,251,201 |  | 3,464,769,927 | 73\% | 3.99\% | 5.50\% |
| 5 | 59,467 |  | 3,097,656,554 |  | 3,219,068,226 |  | 3,252,539,382 | 78\% | 3.92\% | 5.00\% |
| 6 | 55,253 |  | 2,931,664,915 |  | 3,041,912,411 |  | 3,075,316,496 | 77\% | 3.76\% | 4.90\% |
| 7 | 51,809 |  | 2,812,100,346 |  | 2,919,521,119 |  | 2,947,081,163 | 80\% | 3.82\% | 4.80\% |
| 8 | 48,461 |  | 2,659,682,841 |  | 2,756,737,234 |  | 2,784,687,935 | 78\% | 3.65\% | 4.70\% |
| 9 | 46,453 |  | 2,596,054,704 |  | 2,688,468,635 |  | 2,715,473,220 | 77\% | 3.56\% | 4.60\% |
| 10 | 46,146 |  | 2,617,083,570 |  | 2,706,096,439 |  | 2,734,852,331 | 76\% | 3.40\% | 4.50\% |
| 11 | 44,299 |  | 2,541,679,148 |  | 2,631,015,270 |  | 2,656,054,710 | 78\% | 3.51\% | 4.50\% |
| 12 | 41,687 |  | 2,424,506,030 |  | 2,509,690,343 |  | 2,533,608,801 | 78\% | 3.51\% | 4.50\% |
| 13 | 40,031 |  | 2,352,734,485 |  | 2,440,042,807 |  | 2,458,607,537 | 82\% | 3.71\% | 4.50\% |
| 14 | 39,295 |  | 2,324,195,465 |  | 2,406,472,240 |  | 2,428,784,261 | 79\% | 3.54\% | 4.50\% |
| 15 | 38,309 |  | 2,281,670,789 |  | 2,369,738,706 |  | 2,384,345,975 | 86\% | 3.86\% | 4.50\% |
| 16 | 37,545 |  | 2,256,856,732 |  | 2,336,659,591 |  | 2,357,286,857 | 79\% | 3.54\% | 4.45\% |
| 17 | 37,010 |  | 2,244,133,353 |  | 2,318,692,824 |  | 2,342,875,221 | 76\% | 3.32\% | 4.40\% |
| 18 | 35,043 |  | 2,128,874,307 |  | 2,202,560,410 |  | 2,221,480,339 | 80\% | 3.46\% | 4.35\% |
| 19 | 33,019 |  | 2,025,911,292 |  | 2,092,299,684 |  | 2,113,025,478 | 76\% | 3.28\% | 4.30\% |
| 20 | 29,678 |  | 1,839,326,066 |  | 1,896,980,819 |  | 1,917,497,424 | 74\% | 3.13\% | 4.25\% |
| 21 | 27,143 |  | 1,693,190,536 |  | 1,748,358,590 |  | 1,764,304,539 | 78\% | 3.26\% | 4.20\% |
| 22 | 25,460 |  | 1,597,126,216 |  | 1,647,932,752 |  | 1,663,406,954 | 77\% | 3.18\% | 4.15\% |
| 23 | 23,366 |  | 1,464,687,006 |  | 1,507,591,024 |  | 1,524,739,173 | 71\% | 2.93\% | 4.10\% |
| 24 | 20,456 |  | 1,296,365,820 |  | 1,338,259,168 |  | 1,348,868,636 | 80\% | 3.23\% | 4.05\% |
| 25 | 17,027 |  | 1,094,905,584 |  | 1,124,232,592 |  | 1,138,701,807 | 67\% | 2.68\% | 4.00\% |
| 26 | 13,991 |  | 908,844,144 |  | 935,625,976 |  | 945,197,910 | 74\% | 2.95\% | 4.00\% |
| 27 | 11,363 |  | 752,101,734 |  | 772,166,986 |  | 782,185,803 | 67\% | 2.67\% | 4.00\% |
| 28 | 9,268 |  | 621,475,475 |  | 638,837,895 |  | 646,334,494 | 70\% | 2.79\% | 4.00\% |
| 29 | 7,869 |  | 522,148,637 |  | 535,394,656 |  | 543,034,582 | 63\% | 2.54\% | 4.00\% |
| 30+ | 40,457 |  | 2,675,346,727 |  | 2,751,882,510 |  | 2,782,360,596 | 72\% | 2.86\% | 4.00\% |
| Total | 1,187,524 |  | 66,757,250,257 |  | 69,364,177,096 |  | 70,092,037,595 | 78\% | 3.91\% | 5.00\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL <br> TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS <br> MEN AND WOMEN

TABLE 11A

| Service | Life Years Exposed | Total Salary BOY |  | Actual Salary EOY |  | $\begin{gathered} \text { Proposed Salary } \\ \text { EOY } \\ \hline \end{gathered}$ |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 36,004 | \$ | 1,673,049,910 | \$ | 1,811,350,349 | \$ | 1,819,441,777 | 94\% | 8.27\% | 8.75\% |
| 1 | 69,252 |  | 3,232,433,724 |  | 3,457,708,891 |  | 3,434,460,832 | 112\% | 6.97\% | 6.25\% |
| 2 | 70,364 |  | 3,422,306,461 |  | 3,609,444,178 |  | 3,610,533,316 | 99\% | 5.47\% | 5.50\% |
| 3 | 67,484 |  | 3,384,995,575 |  | 3,534,183,570 |  | 3,528,857,887 | 104\% | 4.41\% | 4.25\% |
| 4 | 64,515 |  | 3,284,142,111 |  | 3,415,251,201 |  | 3,415,507,795 | 100\% | 3.99\% | 4.00\% |
| 5 | 59,467 |  | 3,097,656,554 |  | 3,219,068,226 |  | 3,244,795,240 | 83\% | 3.92\% | 4.75\% |
| 6 | 55,253 |  | 2,931,664,915 |  | 3,041,912,411 |  | 3,067,987,334 | 81\% | 3.76\% | 4.65\% |
| 7 | 51,809 |  | 2,812,100,346 |  | 2,919,521,119 |  | 2,940,050,912 | 84\% | 3.82\% | 4.55\% |
| 8 | 48,461 |  | 2,659,682,841 |  | 2,756,737,234 |  | 2,778,038,727 | 82\% | 3.65\% | 4.45\% |
| 9 | 46,453 |  | 2,596,054,704 |  | 2,688,468,635 |  | 2,708,983,084 | 82\% | 3.56\% | 4.35\% |
| 10 | 46,146 |  | 2,617,083,570 |  | 2,706,096,439 |  | 2,728,309,622 | 80\% | 3.40\% | 4.25\% |
| 11 | 44,299 |  | 2,541,679,148 |  | 2,631,015,270 |  | 2,649,700,512 | 83\% | 3.51\% | 4.25\% |
| 12 | 41,687 |  | 2,424,506,030 |  | 2,509,690,343 |  | 2,527,547,536 | 83\% | 3.51\% | 4.25\% |
| 13 | 40,031 |  | 2,352,734,485 |  | 2,440,042,807 |  | 2,452,725,701 | 87\% | 3.71\% | 4.25\% |
| 14 | 39,295 |  | 2,324,195,465 |  | 2,406,472,240 |  | 2,422,973,772 | 83\% | 3.54\% | 4.25\% |
| 15 | 38,309 |  | 2,281,670,789 |  | 2,369,738,706 |  | 2,378,641,798 | 91\% | 3.86\% | 4.25\% |
| 16 | 37,545 |  | 2,256,856,732 |  | 2,336,659,591 |  | 2,351,644,715 | 84\% | 3.54\% | 4.20\% |
| 17 | 37,010 |  | 2,244,133,353 |  | 2,318,692,824 |  | 2,337,264,887 | 80\% | 3.32\% | 4.15\% |
| 18 | 35,043 |  | 2,128,874,307 |  | 2,202,560,410 |  | 2,216,158,154 | 84\% | 3.46\% | 4.10\% |
| 19 | 33,019 |  | 2,025,911,292 |  | 2,092,299,684 |  | 2,107,960,699 | 81\% | 3.28\% | 4.05\% |
| 20 | 29,678 |  | 1,839,326,066 |  | 1,896,980,819 |  | 1,912,899,109 | 78\% | 3.13\% | 4.00\% |
| 21 | 27,143 |  | 1,693,190,536 |  | 1,748,358,590 |  | 1,760,071,562 | 82\% | 3.26\% | 3.95\% |
| 22 | 25,460 |  | 1,597,126,216 |  | 1,647,932,752 |  | 1,659,414,138 | 82\% | 3.18\% | 3.90\% |
| 23 | 23,366 |  | 1,464,687,006 |  | 1,507,591,024 |  | 1,521,077,456 | 76\% | 2.93\% | 3.85\% |
| 24 | 20,456 |  | 1,296,365,820 |  | 1,338,259,168 |  | 1,345,627,721 | 85\% | 3.23\% | 3.80\% |
| 25 | 17,027 |  | 1,094,905,584 |  | 1,124,232,592 |  | 1,135,964,543 | 71\% | 2.68\% | 3.75\% |
| 26 | 13,991 |  | 908,844,144 |  | 935,625,976 |  | 942,925,799 | 79\% | 2.95\% | 3.75\% |
| 27 | 11,363 |  | 752,101,734 |  | 772,166,986 |  | 780,305,549 | 71\% | 2.67\% | 3.75\% |
| 28 | 9,268 |  | 621,475,475 |  | 638,837,895 |  | 644,780,805 | 74\% | 2.79\% | 3.75\% |
| 29 | 7,869 |  | 522,148,637 |  | 535,394,656 |  | 541,729,211 | 68\% | 2.54\% | 3.75\% |
| 30+ | 40,457 |  | 2,675,346,727 |  | 2,751,882,510 |  | 2,775,672,229 | 76\% | 2.86\% | 3.75\% |
| Total | 1,187,524 |  | 66,757,250,257 |  | 69,364,177,096 |  | 69,742,052,423 | 87\% | 3.91\% | 4.47\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL <br> MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

## TABLE 11B

| Service | Life Years Exposed | Total Salary BOY |  | Estimated Actual <br> Merit Salary EOY |  | Expected Merit Salary EOY |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 36,004 | \$ | 1,673,049,910 | \$ | 1,792,524,625 | \$ | 1,773,432,905 | 119\% | 7.14\% | 6.00\% |
| 1 | 69,252 |  | 3,232,433,724 |  | 3,358,922,072 |  | 3,394,055,410 | 78\% | 3.91\% | 5.00\% |
| 2 | 70,364 |  | 3,422,306,461 |  | 3,539,943,159 |  | 3,559,198,719 | 86\% | 3.44\% | 4.00\% |
| 3 | 67,484 |  | 3,384,995,575 |  | 3,465,558,971 |  | 3,486,545,442 | 79\% | 2.38\% | 3.00\% |
| 4 | 64,515 |  | 3,284,142,111 |  | 3,350,395,898 |  | 3,366,245,664 | 81\% | 2.02\% | 2.50\% |
| 5 | 59,467 |  | 3,097,656,554 |  | 3,154,735,410 |  | 3,159,609,685 | 92\% | 1.84\% | 2.00\% |
| 6 | 55,253 |  | 2,931,664,915 |  | 2,982,638,489 |  | 2,987,366,548 | 92\% | 1.74\% | 1.90\% |
| 7 | 51,809 |  | 2,812,100,346 |  | 2,860,826,461 |  | 2,862,718,152 | 96\% | 1.73\% | 1.80\% |
| 8 | 48,461 |  | 2,659,682,841 |  | 2,702,286,655 |  | 2,704,897,449 | 94\% | 1.60\% | 1.70\% |
| 9 | 46,453 |  | 2,596,054,704 |  | 2,634,374,879 |  | 2,637,591,579 | 92\% | 1.48\% | 1.60\% |
| 10 | 46,146 |  | 2,617,083,570 |  | 2,655,632,680 |  | 2,656,339,824 | 98\% | 1.47\% | 1.50\% |
| 11 | 44,299 |  | 2,541,679,148 |  | 2,577,032,382 |  | 2,579,804,335 | 93\% | 1.39\% | 1.50\% |
| 12 | 41,687 |  | 2,424,506,030 |  | 2,459,093,578 |  | 2,460,873,620 | 95\% | 1.43\% | 1.50\% |
| 13 | 40,031 |  | 2,352,734,485 |  | 2,385,983,575 |  | 2,388,025,502 | 94\% | 1.41\% | 1.50\% |
| 14 | 39,295 |  | 2,324,195,465 |  | 2,355,418,036 |  | 2,359,058,397 | 90\% | 1.34\% | 1.50\% |
| 15 | 38,309 |  | 2,281,670,789 |  | 2,318,223,081 |  | 2,315,895,851 | 107\% | 1.60\% | 1.50\% |
| 16 | 37,545 |  | 2,256,856,732 |  | 2,287,818,887 |  | 2,289,581,155 | 95\% | 1.37\% | 1.45\% |
| 17 | 37,010 |  | 2,244,133,353 |  | 2,271,401,234 |  | 2,275,551,220 | 87\% | 1.22\% | 1.40\% |
| 18 | 35,043 |  | 2,128,874,307 |  | 2,158,320,217 |  | 2,157,614,110 | 102\% | 1.38\% | 1.35\% |
| 19 | 33,019 |  | 2,025,911,292 |  | 2,051,294,754 |  | 2,052,248,139 | 96\% | 1.25\% | 1.30\% |
| 20 | 29,678 |  | 1,839,326,066 |  | 1,860,116,179 |  | 1,862,317,642 | 90\% | 1.13\% | 1.25\% |
| 21 | 27,143 |  | 1,693,190,536 |  | 1,715,866,277 |  | 1,713,508,822 | 112\% | 1.34\% | 1.20\% |
| 22 | 25,460 |  | 1,597,126,216 |  | 1,618,046,183 |  | 1,615,493,167 | 114\% | 1.31\% | 1.15\% |
| 23 | 23,366 |  | 1,464,687,006 |  | 1,480,703,570 |  | 1,480,798,563 | 99\% | 1.09\% | 1.10\% |
| 24 | 20,456 |  | 1,296,365,820 |  | 1,313,602,874 |  | 1,309,977,661 | 127\% | 1.33\% | 1.05\% |
| 25 | 17,027 |  | 1,094,905,584 |  | 1,104,405,546 |  | 1,105,854,640 | 87\% | 0.87\% | 1.00\% |
| 26 | 13,991 |  | 908,844,144 |  | 908,844,144 |  | 917,932,585 |  | 0.00\% | 1.00\% |
| 27 | 11,363 |  | 752,101,734 |  | 752,101,734 |  | 759,622,751 |  | 0.00\% | 1.00\% |
| 28 | 9,268 |  | 621,475,475 |  | 621,475,475 |  | 627,690,230 |  | 0.00\% | 1.00\% |
| 29 | 7,869 |  | 522,148,637 |  | 522,148,637 |  | 527,370,123 |  | 0.00\% | 1.00\% |
| 30+ | 40,457 |  | 2,675,346,727 |  | 2,675,346,727 |  | 2,702,100,194 |  | 0.00\% | 1.00\% |
| Total | 1,187,524 |  | 66,757,250,257 |  | 67,935,082,389 |  | 68,089,320,087 | 88\% | 1.76\% | 2.00\% |

The rates for expected merit salary increases are based on actual rates of increase for total salary, adjusted for inflation of $2.43 \%$.
Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL <br> MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

## TABLE 11B

| Service | Life Years Exposed | Total Salary BOY |  | Estimated Actual <br> Merit Salary EOY |  | Proposed Merit Salary EOY |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 36,004 | \$ | 1,673,049,910 | \$ | 1,792,524,625 | \$ | 1,773,432,905 | 119\% | 7.14\% | 6.00\% |
| 1 | 69,252 |  | 3,232,433,724 |  | 3,358,922,072 |  | 3,345,568,904 | 112\% | 3.91\% | 3.50\% |
| 2 | 70,364 |  | 3,422,306,461 |  | 3,539,943,159 |  | 3,516,419,889 | 125\% | 3.44\% | 2.75\% |
| 3 | 67,484 |  | 3,384,995,575 |  | 3,465,558,971 |  | 3,435,770,509 | 159\% | 2.38\% | 1.50\% |
| 4 | 64,515 |  | 3,284,142,111 |  | 3,350,395,898 |  | 3,325,193,887 | 161\% | 2.02\% | 1.25\% |
| 5 | 59,467 |  | 3,097,656,554 |  | 3,154,735,410 |  | 3,159,609,685 | 92\% | 1.84\% | 2.00\% |
| 6 | 55,253 |  | 2,931,664,915 |  | 2,982,638,489 |  | 2,987,366,548 | 92\% | 1.74\% | 1.90\% |
| 7 | 51,809 |  | 2,812,100,346 |  | 2,860,826,461 |  | 2,862,718,152 | 96\% | 1.73\% | 1.80\% |
| 8 | 48,461 |  | 2,659,682,841 |  | 2,702,286,655 |  | 2,704,897,449 | 94\% | 1.60\% | 1.70\% |
| 9 | 46,453 |  | 2,596,054,704 |  | 2,634,374,879 |  | 2,637,591,579 | 92\% | 1.48\% | 1.60\% |
| 10 | 46,146 |  | 2,617,083,570 |  | 2,655,632,680 |  | 2,656,339,824 | 98\% | 1.47\% | 1.50\% |
| 11 | 44,299 |  | 2,541,679,148 |  | 2,577,032,382 |  | 2,579,804,335 | 93\% | 1.39\% | 1.50\% |
| 12 | 41,687 |  | 2,424,506,030 |  | 2,459,093,578 |  | 2,460,873,620 | 95\% | 1.43\% | 1.50\% |
| 13 | 40,031 |  | 2,352,734,485 |  | 2,385,983,575 |  | 2,388,025,502 | 94\% | 1.41\% | 1.50\% |
| 14 | 39,295 |  | 2,324,195,465 |  | 2,355,418,036 |  | 2,359,058,397 | 90\% | 1.34\% | 1.50\% |
| 15 | 38,309 |  | 2,281,670,789 |  | 2,318,223,081 |  | 2,315,895,851 | 107\% | 1.60\% | 1.50\% |
| 16 | 37,545 |  | 2,256,856,732 |  | 2,287,818,887 |  | 2,289,581,155 | 95\% | 1.37\% | 1.45\% |
| 17 | 37,010 |  | 2,244,133,353 |  | 2,271,401,234 |  | 2,275,551,220 | 87\% | 1.22\% | 1.40\% |
| 18 | 35,043 |  | 2,128,874,307 |  | 2,158,320,217 |  | 2,157,614,110 | 102\% | 1.38\% | 1.35\% |
| 19 | 33,019 |  | 2,025,911,292 |  | 2,051,294,754 |  | 2,052,248,139 | 96\% | 1.25\% | 1.30\% |
| 20 | 29,678 |  | 1,839,326,066 |  | 1,860,116,179 |  | 1,862,317,642 | 90\% | 1.13\% | 1.25\% |
| 21 | 27,143 |  | 1,693,190,536 |  | 1,715,866,277 |  | 1,713,508,822 | 112\% | 1.34\% | 1.20\% |
| 22 | 25,460 |  | 1,597,126,216 |  | 1,618,046,183 |  | 1,615,493,167 | 114\% | 1.31\% | 1.15\% |
| 23 | 23,366 |  | 1,464,687,006 |  | 1,480,703,570 |  | 1,480,798,563 | 99\% | 1.09\% | 1.10\% |
| 24 | 20,456 |  | 1,296,365,820 |  | 1,313,602,874 |  | 1,309,977,661 | 127\% | 1.33\% | 1.05\% |
| 25 | 17,027 |  | 1,094,905,584 |  | 1,104,405,546 |  | 1,105,854,640 | 87\% | 0.87\% | 1.00\% |
| 26 | 13,991 |  | 908,844,144 |  | 908,844,144 |  | 917,932,585 |  | 0.00\% | 1.00\% |
| 27 | 11,363 |  | 752,101,734 |  | 752,101,734 |  | 759,622,751 |  | 0.00\% | 1.00\% |
| 28 | 9,268 |  | 621,475,475 |  | 621,475,475 |  | 627,690,230 |  | 0.00\% | 1.00\% |
| 29 | 7,869 |  | 522,148,637 |  | 522,148,637 |  | 527,370,123 |  | 0.00\% | 1.00\% |
| 30+ | 40,457 |  | 2,675,346,727 |  | 2,675,346,727 |  | 2,702,100,194 |  | 0.00\% | 1.00\% |
| Total | 1,187,524 |  | 66,757,250,257 |  | 67,935,082,389 |  | 67,906,228,041 | 103\% | 1.76\% | 1.72\% |

Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL

TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS
MEN AND WOMEN


## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL OVERTIME PAY EXPERIENCE FOR ALL YEARS MEN AND WOMEN

TABLE 12A 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 6,529 | \$ | 288,801,564 | \$ | 22,805,913 | \$ | 11,552,063 | 197\% | 7.90\% | 4.00\% |
| 1 | 13,676 |  | 610,522,639 |  | 61,735,692 |  | 24,420,906 | 253\% | 10.11\% | 4.00\% |
| 2 | 15,936 |  | 751,896,196 |  | 81,007,813 |  | 30,075,848 | 269\% | 10.77\% | 4.00\% |
| 3 | 15,063 |  | 738,156,549 |  | 84,708,010 |  | 29,526,262 | 287\% | 11.48\% | 4.00\% |
| 4 | 15,259 |  | 763,020,653 |  | 93,181,999 |  | 30,520,826 | 305\% | 12.21\% | 4.00\% |
| 5 | 13,024 |  | 670,429,744 |  | 81,414,681 |  | 26,817,190 | 304\% | 12.14\% | 4.00\% |
| 6 | 11,039 |  | 575,026,518 |  | 71,110,080 |  | 23,001,061 | 309\% | 12.37\% | 4.00\% |
| 7 | 10,578 |  | 559,692,978 |  | 69,094,334 |  | 22,387,719 | 309\% | 12.35\% | 4.00\% |
| 8 | 9,566 |  | 508,468,625 |  | 64,807,888 |  | 20,338,745 | 319\% | 12.75\% | 4.00\% |
| 9 | 9,233 |  | 498,049,201 |  | 65,673,257 |  | 19,921,968 | 330\% | 13.19\% | 4.00\% |
| 10 | 9,472 |  | 515,322,003 |  | 70,033,002 |  | 20,612,880 | 340\% | 13.59\% | 4.00\% |
| 11 | 8,739 |  | 490,606,033 |  | 66,365,256 |  | 19,624,241 | 338\% | 13.53\% | 4.00\% |
| 12 | 7,673 |  | 444,816,131 |  | 60,369,526 |  | 17,792,645 | 339\% | 13.57\% | 4.00\% |
| 13 | 6,266 |  | 380,518,751 |  | 46,504,811 |  | 15,220,750 | 306\% | 12.22\% | 4.00\% |
| 14 | 6,216 |  | 384,441,391 |  | 45,889,772 |  | 15,377,656 | 298\% | 11.94\% | 4.00\% |
| 15 | 5,796 |  | 366,223,208 |  | 41,228,980 |  | 14,648,928 | 281\% | 11.26\% | 4.00\% |
| 16 | 5,921 |  | 380,109,784 |  | 43,938,803 |  | 15,204,391 | 289\% | 11.56\% | 4.00\% |
| 17 | 6,247 |  | 400,906,541 |  | 45,914,760 |  | 16,036,262 | 286\% | 11.45\% | 4.00\% |
| 18 | 5,760 |  | 373,885,318 |  | 44,337,063 |  | 14,955,413 | 296\% | 11.86\% | 4.00\% |
| 19 | 6,006 |  | 390,773,322 |  | 49,858,757 |  | 15,630,933 | 319\% | 12.76\% | 4.00\% |
| 20 | 5,821 |  | 376,797,298 |  | 49,139,485 |  | 15,071,892 | 326\% | 13.04\% | 4.00\% |
| 21 | 5,691 |  | 374,717,738 |  | 50,123,387 |  | 14,988,710 | 334\% | 13.38\% | 4.00\% |
| 22 | 5,563 |  | 372,137,828 |  | 49,580,418 |  | 14,885,513 | 333\% | 13.32\% | 4.00\% |
| 23 | 5,032 |  | 337,493,312 |  | 45,108,910 |  | 13,499,732 | 334\% | 13.37\% | 4.00\% |
| 24 | 4,323 |  | 292,102,902 |  | 38,614,763 |  | 11,684,116 | 330\% | 13.22\% | 4.00\% |
| 25 | 3,661 |  | 249,890,613 |  | 33,177,420 |  | 9,995,625 | 332\% | 13.28\% | 4.00\% |
| 26 | 2,900 |  | 196,689,388 |  | 25,870,195 |  | 7,867,576 | 329\% | 13.15\% | 4.00\% |
| 27 | 2,300 |  | 156,815,133 |  | 20,989,640 |  | 6,272,605 | 335\% | 13.38\% | 4.00\% |
| 28 | 2,058 |  | 140,136,519 |  | 17,245,229 |  | 5,605,461 | 308\% | 12.31\% | 4.00\% |
| 29 | 1,723 |  | 114,656,301 |  | 14,386,269 |  | 4,586,252 | 314\% | 12.55\% | 4.00\% |
| 30 | 1,448 |  | 98,200,078 |  | 12,017,623 |  | 3,928,003 | 306\% | 12.24\% | 4.00\% |
| 31 | 1,067 |  | 73,799,562 |  | 8,878,576 |  | 2,951,982 | 301\% | 12.03\% | 4.00\% |
| 32 | 677 |  | 46,600,876 |  | 5,376,845 |  | 1,864,035 | 288\% | 11.54\% | 4.00\% |
| 33 | 364 |  | 25,770,544 |  | 2,990,384 |  | 1,030,822 | 290\% | 11.60\% | 4.00\% |
| 34 | 251 |  | 16,606,962 |  | 1,722,309 |  | 664,278 | 259\% | 10.37\% | 4.00\% |
| 35 | 247 |  | 15,166,540 |  | 1,864,160 |  | 606,662 | 307\% | 12.29\% | 4.00\% |
| 36 | 315 |  | 19,449,590 |  | 2,109,403 |  | 777,984 | 271\% | 10.85\% | 4.00\% |
| 37 | 268 |  | 16,272,735 |  | 1,377,033 |  | 650,909 | 212\% | 8.46\% | 4.00\% |
| 38 | 228 |  | 13,922,557 |  | 1,159,803 |  | 556,902 | 208\% | 8.33\% | 4.00\% |
| 39 | 176 |  | 10,842,978 |  | 1,024,414 |  | 433,719 | 236\% | 9.45\% | 4.00\% |
| 40 | 115 |  | 6,802,927 |  | 698,605 |  | 272,117 | 257\% | 10.27\% | 4.00\% |
| 41 | 71 |  | 4,321,575 |  | 394,438 |  | 172,863 | 228\% | 9.13\% | 4.00\% |
| 42 | 44 |  | 2,729,973 |  | 202,808 |  | 109,199 | 186\% | 7.43\% | 4.00\% |
| 43 | 31 |  | 1,847,415 |  | 143,502 |  | 73,897 | 194\% | 7.77\% | 4.00\% |
| 44 | 18 |  | 1,055,907 |  | 92,884 |  | 42,236 | 220\% | 8.80\% | 4.00\% |
| 45 | 18 |  | 1,225,105 |  | 81,471 |  | 49,004 | 166\% | 6.65\% | 4.00\% |
| Total | 232,409 |  | 3,057,719,504 |  | 1,594,350,371 |  | 522,308,780 | 305\% | 12.21\% | 4.00\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL OVERTIME PAY EXPERIENCE FOR ALL YEARS MEN AND WOMEN

TABLE 12A 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 6,529 | \$ | 288,801,564 | \$ | 22,805,913 | \$ | 23,104,125 | 99\% | 7.90\% | 8.00\% |
| 1 | 13,676 |  | 610,522,639 |  | 61,735,692 |  | 48,841,811 | 126\% | 10.11\% | 8.00\% |
| 2 | 15,936 |  | 751,896,196 |  | 81,007,813 |  | 60,151,696 | 135\% | 10.77\% | 8.00\% |
| 3 | 15,063 |  | 738,156,549 |  | 84,708,010 |  | 59,052,524 | 143\% | 11.48\% | 8.00\% |
| 4 | 15,259 |  | 763,020,653 |  | 93,181,999 |  | 61,041,652 | 153\% | 12.21\% | 8.00\% |
| 5 | 13,024 |  | 670,429,744 |  | 81,414,681 |  | 53,634,380 | 152\% | 12.14\% | 8.00\% |
| 6 | 11,039 |  | 575,026,518 |  | 71,110,080 |  | 46,002,121 | 155\% | 12.37\% | 8.00\% |
| 7 | 10,578 |  | 559,692,978 |  | 69,094,334 |  | 44,775,438 | 154\% | 12.35\% | 8.00\% |
| 8 | 9,566 |  | 508,468,625 |  | 64,807,888 |  | 40,677,490 | 159\% | 12.75\% | 8.00\% |
| 9 | 9,233 |  | 498,049,201 |  | 65,673,257 |  | 39,843,936 | 165\% | 13.19\% | 8.00\% |
| 10 | 9,472 |  | 515,322,003 |  | 70,033,002 |  | 41,225,760 | 170\% | 13.59\% | 8.00\% |
| 11 | 8,739 |  | 490,606,033 |  | 66,365,256 |  | 39,248,483 | 169\% | 13.53\% | 8.00\% |
| 12 | 7,673 |  | 444,816,131 |  | 60,369,526 |  | 35,585,290 | 170\% | 13.57\% | 8.00\% |
| 13 | 6,266 |  | 380,518,751 |  | 46,504,811 |  | 30,441,500 | 153\% | 12.22\% | 8.00\% |
| 14 | 6,216 |  | 384,441,391 |  | 45,889,772 |  | 30,755,311 | 149\% | 11.94\% | 8.00\% |
| 15 | 5,796 |  | 366,223,208 |  | 41,228,980 |  | 29,297,857 | 141\% | 11.26\% | 8.00\% |
| 16 | 5,921 |  | 380,109,784 |  | 43,938,803 |  | 30,408,783 | 144\% | 11.56\% | 8.00\% |
| 17 | 6,247 |  | 400,906,541 |  | 45,914,760 |  | 32,072,523 | 143\% | 11.45\% | 8.00\% |
| 18 | 5,760 |  | 373,885,318 |  | 44,337,063 |  | 29,910,825 | 148\% | 11.86\% | 8.00\% |
| 19 | 6,006 |  | 390,773,322 |  | 49,858,757 |  | 31,261,866 | 159\% | 12.76\% | 8.00\% |
| 20 | 5,821 |  | 376,797,298 |  | 49,139,485 |  | 30,143,784 | 163\% | 13.04\% | 8.00\% |
| 21 | 5,691 |  | 374,717,738 |  | 50,123,387 |  | 29,977,419 | 167\% | 13.38\% | 8.00\% |
| 22 | 5,563 |  | 372,137,828 |  | 49,580,418 |  | 29,771,026 | 167\% | 13.32\% | 8.00\% |
| 23 | 5,032 |  | 337,493,312 |  | 45,108,910 |  | 26,999,465 | 167\% | 13.37\% | 8.00\% |
| 24 | 4,323 |  | 292,102,902 |  | 38,614,763 |  | 23,368,232 | 165\% | 13.22\% | 8.00\% |
| 25 | 3,661 |  | 249,890,613 |  | 33,177,420 |  | 19,991,249 | 166\% | 13.28\% | 8.00\% |
| 26 | 2,900 |  | 196,689,388 |  | 25,870,195 |  | 15,735,151 | 164\% | 13.15\% | 8.00\% |
| 27 | 2,300 |  | 156,815,133 |  | 20,989,640 |  | 12,545,211 | 167\% | 13.38\% | 8.00\% |
| 28 | 2,058 |  | 140,136,519 |  | 17,245,229 |  | 11,210,922 | 154\% | 12.31\% | 8.00\% |
| 29 | 1,723 |  | 114,656,301 |  | 14,386,269 |  | 9,172,504 | 157\% | 12.55\% | 8.00\% |
| 30 | 1,448 |  | 98,200,078 |  | 12,017,623 |  | 7,856,006 | 153\% | 12.24\% | 8.00\% |
| 31 | 1,067 |  | 73,799,562 |  | 8,878,576 |  | 5,903,965 | 150\% | 12.03\% | 8.00\% |
| 32 | 677 |  | 46,600,876 |  | 5,376,845 |  | 3,728,070 | 144\% | 11.54\% | 8.00\% |
| 33 | 364 |  | 25,770,544 |  | 2,990,384 |  | 2,061,644 | 145\% | 11.60\% | 8.00\% |
| 34 | 251 |  | 16,606,962 |  | 1,722,309 |  | 1,328,557 | 130\% | 10.37\% | 8.00\% |
| 35 | 247 |  | 15,166,540 |  | 1,864,160 |  | 1,213,323 | 154\% | 12.29\% | 8.00\% |
| 36 | 315 |  | 19,449,590 |  | 2,109,403 |  | 1,555,967 | 136\% | 10.85\% | 8.00\% |
| 37 | 268 |  | 16,272,735 |  | 1,377,033 |  | 1,301,819 | 106\% | 8.46\% | 8.00\% |
| 38 | 228 |  | 13,922,557 |  | 1,159,803 |  | 1,113,805 | 104\% | 8.33\% | 8.00\% |
| 39 | 176 |  | 10,842,978 |  | 1,024,414 |  | 867,438 | 118\% | 9.45\% | 8.00\% |
| 40 | 115 |  | 6,802,927 |  | 698,605 |  | 544,234 | 128\% | 10.27\% | 8.00\% |
| 41 | 71 |  | 4,321,575 |  | 394,438 |  | 345,726 | 114\% | 9.13\% | 8.00\% |
| 42 | 44 |  | 2,729,973 |  | 202,808 |  | 218,398 | 93\% | 7.43\% | 8.00\% |
| 43 | 31 |  | 1,847,415 |  | 143,502 |  | 147,793 | 97\% | 7.77\% | 8.00\% |
| 44 | 18 |  | 1,055,907 |  | 92,884 |  | 84,473 | 110\% | 8.80\% | 8.00\% |
| 45 | 18 |  | 1,225,105 |  | 81,471 |  | 98,008 | 83\% | 6.65\% | 8.00\% |
| Total | 232,409 |  | ,057,719,504 |  | 594,350,371 |  | 1,044,617,560 | 153\% | 12.21\% | 8.00\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL OVERTIME PAY EXPERIENCE BEFORE SERVICE RETIREMENT MEN AND WOMEN

TABLE 12B 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  |  | (6) | (7) | (8) |
| 0 | 0 |  |  |  | - |  | - |  | 0.00\% | 4.00\% |
| 1 | 4 | \$ | 327,038 | \$ | 66,511 | \$ | 13,082 | 508\% | 20.34\% | 4.00\% |
| 2 | 6 |  | 273,807 |  | 25,970 |  | 10,952 | 237\% | 9.48\% | 4.00\% |
| 3 | 14 |  | 813,266 |  | 84,022 |  | 32,531 | 258\% | 10.33\% | 4.00\% |
| 4 | 60 |  | 2,909,966 |  | 401,401 |  | 116,399 | 345\% | 13.79\% | 4.00\% |
| 5 | 81 |  | 3,934,537 |  | 530,079 |  | 157,381 | 337\% | 13.47\% | 4.00\% |
| 6 | 78 |  | 3,853,889 |  | 332,598 |  | 154,156 | 216\% | 8.63\% | 4.00\% |
| 7 | 111 |  | 5,885,656 |  | 802,720 |  | 235,426 | 341\% | 13.64\% | 4.00\% |
| 8 | 96 |  | 4,883,777 |  | 513,060 |  | 195,351 | 263\% | 10.51\% | 4.00\% |
| 9 | 124 |  | 6,368,736 |  | 761,141 |  | 254,749 | 299\% | 11.95\% | 4.00\% |
| 10 | 173 |  | 8,901,771 |  | 1,197,975 |  | 356,071 | 336\% | 13.46\% | 4.00\% |
| 11 | 153 |  | 7,613,348 |  | 762,569 |  | 304,534 | 250\% | 10.02\% | 4.00\% |
| 12 | 178 |  | 9,122,861 |  | 1,151,750 |  | 364,914 | 316\% | 12.62\% | 4.00\% |
| 13 | 267 |  | 12,050,575 |  | 2,168,362 |  | 482,023 | 450\% | 17.99\% | 4.00\% |
| 14 | 148 |  | 8,972,455 |  | 960,216 |  | 358,898 | 268\% | 10.70\% | 4.00\% |
| 15 | 161 |  | 10,034,075 |  | 1,155,457 |  | 401,363 | 288\% | 11.52\% | 4.00\% |
| 16 | 146 |  | 8,288,073 |  | 782,261 |  | 331,523 | 236\% | 9.44\% | 4.00\% |
| 17 | 165 |  | 10,639,662 |  | 1,256,849 |  | 425,586 | 295\% | 11.81\% | 4.00\% |
| 18 | 188 |  | 11,722,666 |  | 1,272,975 |  | 468,907 | 271\% | 10.86\% | 4.00\% |
| 19 | 199 |  | 12,075,714 |  | 1,382,209 |  | 483,029 | 286\% | 11.45\% | 4.00\% |
| 20 | 274 |  | 16,808,018 |  | 1,810,676 |  | 672,321 | 269\% | 10.77\% | 4.00\% |
| 21 | 239 |  | 14,788,181 |  | 1,890,759 |  | 591,527 | 320\% | 12.79\% | 4.00\% |
| 22 | 254 |  | 16,359,650 |  | 2,208,821 |  | 654,386 | 338\% | 13.50\% | 4.00\% |
| 23 | 244 |  | 16,283,429 |  | 1,881,882 |  | 651,337 | 289\% | 11.56\% | 4.00\% |
| 24 | 299 |  | 20,812,116 |  | 2,599,955 |  | 832,485 | 312\% | 12.49\% | 4.00\% |
| 25 | 350 |  | 23,692,836 |  | 2,994,159 |  | 947,713 | 316\% | 12.64\% | 4.00\% |
| 26 | 265 |  | 18,575,594 |  | 2,338,894 |  | 743,024 | 315\% | 12.59\% | 4.00\% |
| 27 | 244 |  | 16,772,972 |  | 2,086,795 |  | 670,919 | 311\% | 12.44\% | 4.00\% |
| 28 | 199 |  | 13,404,463 |  | 1,676,557 |  | 536,179 | 313\% | 12.51\% | 4.00\% |
| 29 | 190 |  | 13,246,238 |  | 1,749,323 |  | 529,850 | 330\% | 13.21\% | 4.00\% |
| 30 | 174 |  | 12,174,833 |  | 1,597,627 |  | 486,993 | 328\% | 13.12\% | 4.00\% |
| 31 | 148 |  | 11,095,127 |  | 1,494,908 |  | 443,805 | 337\% | 13.47\% | 4.00\% |
| 32 | 81 |  | 5,898,300 |  | 764,881 |  | 235,932 | 324\% | 12.97\% | 4.00\% |
| 33 | 65 |  | 4,720,680 |  | 555,294 |  | 188,827 | 294\% | 11.76\% | 4.00\% |
| 34 | 49 |  | 3,060,119 |  | 504,217 |  | 122,405 | 412\% | 16.48\% | 4.00\% |
| 35 | 64 |  | 4,219,683 |  | 663,468 |  | 168,787 | 393\% | 15.72\% | 4.00\% |
| 36 | 74 |  | 5,033,045 |  | 670,971 |  | 201,322 | 333\% | 13.33\% | 4.00\% |
| 37 | 74 |  | 4,749,819 |  | 710,427 |  | 189,993 | 374\% | 14.96\% | 4.00\% |
| 38 | 55 |  | 3,467,567 |  | 315,079 |  | 138,703 | 227\% | 9.09\% | 4.00\% |
| 39 | 36 |  | 2,062,663 |  | 248,138 |  | 82,507 | 301\% | 12.03\% | 4.00\% |
| 40 | 26 |  | 1,553,077 |  | 218,564 |  | 62,123 | 352\% | 14.07\% | 4.00\% |
| 41 | 21 |  | 1,259,338 |  | 167,272 |  | 50,374 | 332\% | 13.28\% | 4.00\% |
| 42 | 15 |  | 865,589 |  | 70,281 |  | 34,624 | 203\% | 8.12\% | 4.00\% |
| 43 | 4 |  | 272,000 |  | 11,046 |  | 10,880 | 102\% | 4.06\% | 4.00\% |
| 44 | 7 |  | 495,568 |  | 32,323 |  | 19,823 | 163\% | 6.52\% | 4.00\% |
| 45 | 2 |  | 100,151 |  | 32,685 |  | 4,006 | 816\% | 32.64\% | 4.00\% |
| Total | 5,805 |  | 360,442,928 |  | 44,903,127 |  | 4,417,717 | 311\% | 12.46\% | 4.00\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL OVERTIME PAY EXPERIENCE BEFORE SERVICE RETIREMENT MEN AND WOMEN

TABLE 12B 4-YEAR PERIOD ENDING 6/30/2013


## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL OVERTIME PAY EXPERIENCE BEFORE DISABLED RETIREMENT MEN AND WOMEN

TABLE 12C 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  |  | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  |  | 4.00\% |
| 1 | 0 |  | - |  | - |  | - |  |  | 4.00\% |
| 2 | 3 | \$ | 159,518 | \$ | 15,335 | \$ | 6,381 | 240\% | 9.61\% | 4.00\% |
| 3 | 1 |  | 34,409 |  | 308 |  | 1,376 | 22\% | 0.90\% | 4.00\% |
| 4 | 4 |  | 182,162 |  | 4,072 |  | 7,286 | 56\% | 2.24\% | 4.00\% |
| 5 | 2 |  | 142,834 |  | 9,512 |  | 5,713 | 166\% | 6.66\% | 4.00\% |
| 6 | 11 |  | 459,385 |  | 36,722 |  | 18,375 | 200\% | 7.99\% | 4.00\% |
| 7 | 8 |  | 346,993 |  | 43,247 |  | 13,880 | 312\% | 12.46\% | 4.00\% |
| 8 | 12 |  | 628,750 |  | 63,907 |  | 25,150 | 254\% | 10.16\% | 4.00\% |
| 9 | 19 |  | 980,840 |  | 118,976 |  | 39,234 | 303\% | 12.13\% | 4.00\% |
| 10 | 50 |  | 2,475,363 |  | 210,688 |  | 99,015 | 213\% | 8.51\% | 4.00\% |
| 11 | 32 |  | 1,555,397 |  | 135,332 |  | 62,216 | 218\% | 8.70\% | 4.00\% |
| 12 | 28 |  | 1,273,094 |  | 128,047 |  | 50,924 | 251\% | 10.06\% | 4.00\% |
| 13 | 30 |  | 1,492,202 |  | 219,637 |  | 59,688 | 368\% | 14.72\% | 4.00\% |
| 14 | 29 |  | 1,565,649 |  | 206,310 |  | 62,626 | 329\% | 13.18\% | 4.00\% |
| 15 | 18 |  | 1,079,913 |  | 82,598 |  | 43,197 | 191\% | 7.65\% | 4.00\% |
| 16 | 28 |  | 1,564,305 |  | 105,063 |  | 62,572 | 168\% | 6.72\% | 4.00\% |
| 17 | 30 |  | 1,721,063 |  | 147,927 |  | 68,843 | 215\% | 8.60\% | 4.00\% |
| 18 | 18 |  | 1,044,628 |  | 117,227 |  | 41,785 | 281\% | 11.22\% | 4.00\% |
| 19 | 19 |  | 1,124,253 |  | 145,256 |  | 44,970 | 323\% | 12.92\% | 4.00\% |
| 20 | 30 |  | 1,891,503 |  | 234,108 |  | 75,660 | 309\% | 12.38\% | 4.00\% |
| 21 | 35 |  | 1,960,172 |  | 233,413 |  | 78,407 | 298\% | 11.91\% | 4.00\% |
| 22 | 26 |  | 1,546,009 |  | 162,861 |  | 61,840 | 263\% | 10.53\% | 4.00\% |
| 23 | 23 |  | 1,390,114 |  | 140,289 |  | 55,605 | 252\% | 10.09\% | 4.00\% |
| 24 | 25 |  | 1,340,644 |  | 209,731 |  | 53,626 | 391\% | 15.64\% | 4.00\% |
| 25 | 18 |  | 1,259,820 |  | 172,695 |  | 50,393 | 343\% | 13.71\% | 4.00\% |
| 26 | 9 |  | 549,908 |  | 47,126 |  | 21,996 | 214\% | 8.57\% | 4.00\% |
| 27 | 8 |  | 478,490 |  | 23,799 |  | 19,140 | 124\% | 4.97\% | 4.00\% |
| 28 | 5 |  | 294,436 |  | 21,823 |  | 11,777 | 185\% | 7.41\% | 4.00\% |
| 29 | 4 |  | 245,516 |  | 9,618 |  | 9,821 | 98\% | 3.92\% | 4.00\% |
| 30 | 7 |  | 485,006 |  | 52,072 |  | 19,400 | 268\% | 10.74\% | 4.00\% |
| 31 | 5 |  | 314,888 |  | 41,403 |  | 12,596 | 329\% | 13.15\% | 4.00\% |
| 32 | 2 |  | 99,079 |  | 6,484 |  | 3,963 | 164\% | 6.54\% | 4.00\% |
| 33 | 0 |  | - |  | - |  | - |  |  | 4.00\% |
| 34 | 1 |  | 57,981 |  | 152 |  | 2,319 | 7\% | 0.26\% | 4.00\% |
| 35 | 1 |  | 93,174 |  | 357 |  | 3,727 | 10\% | 0.38\% | 4.00\% |
| 36 | 2 |  | 98,520 |  | 6,336 |  | 3,941 | 161\% | 6.43\% | 4.00\% |
| 37 | 1 |  | 54,208 |  | 1,421 |  | 2,168 | 66\% | 2.62\% | 4.00\% |
| 38 | 0 |  | - |  | - |  | , |  |  | 4.00\% |
| 39 | 0 |  | - |  | - |  | - |  |  | 4.00\% |
| 40 | 0 |  | - |  | - |  | - |  |  | 4.00\% |
| 41 | 0 |  | - |  | - |  | - |  |  | 4.00\% |
| 42 | 0 |  | - |  | - |  | - |  |  | 4.00\% |
| 43 | 0 |  | - |  | - |  | - |  |  | 4.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 4.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 4.00\% |
| Total | 544 |  | 29,990,227 |  | 3,153,852 |  | 99,609 | 263\% | 10.52\% | 4.00\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL OVERTIME PAY EXPERIENCE BEFORE DISABLED RETIREMENT MEN AND WOMEN

TABLE 12C 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual/ <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  |  | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 1 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 2 | 3 | \$ | 159,518 | \$ | 15,335 | \$ | 12,761 | 120\% | 9.61\% | 8.00\% |
| 3 | 1 |  | 34,409 |  | 308 |  | 2,753 | 11\% | 0.90\% | 8.00\% |
| 4 | 4 |  | 182,162 |  | 4,072 |  | 14,573 | 28\% | 2.24\% | 8.00\% |
| 5 | 2 |  | 142,834 |  | 9,512 |  | 11,427 | 83\% | 6.66\% | 8.00\% |
| 6 | 11 |  | 459,385 |  | 36,722 |  | 36,751 | 100\% | 7.99\% | 8.00\% |
| 7 | 8 |  | 346,993 |  | 43,247 |  | 27,759 | 156\% | 12.46\% | 8.00\% |
| 8 | 12 |  | 628,750 |  | 63,907 |  | 50,300 | 127\% | 10.16\% | 8.00\% |
| 9 | 19 |  | 980,840 |  | 118,976 |  | 78,467 | 152\% | 12.13\% | 8.00\% |
| 10 | 50 |  | 2,475,363 |  | 210,688 |  | 198,029 | 106\% | 8.51\% | 8.00\% |
| 11 | 32 |  | 1,555,397 |  | 135,332 |  | 124,432 | 109\% | 8.70\% | 8.00\% |
| 12 | 28 |  | 1,273,094 |  | 128,047 |  | 101,848 | 126\% | 10.06\% | 8.00\% |
| 13 | 30 |  | 1,492,202 |  | 219,637 |  | 119,376 | 184\% | 14.72\% | 8.00\% |
| 14 | 29 |  | 1,565,649 |  | 206,310 |  | 125,252 | 165\% | 13.18\% | 8.00\% |
| 15 | 18 |  | 1,079,913 |  | 82,598 |  | 86,393 | 96\% | 7.65\% | 8.00\% |
| 16 | 28 |  | 1,564,305 |  | 105,063 |  | 125,144 | 84\% | 6.72\% | 8.00\% |
| 17 | 30 |  | 1,721,063 |  | 147,927 |  | 137,685 | 107\% | 8.60\% | 8.00\% |
| 18 | 18 |  | 1,044,628 |  | 117,227 |  | 83,570 | 140\% | 11.22\% | 8.00\% |
| 19 | 19 |  | 1,124,253 |  | 145,256 |  | 89,940 | 162\% | 12.92\% | 8.00\% |
| 20 | 30 |  | 1,891,503 |  | 234,108 |  | 151,320 | 155\% | 12.38\% | 8.00\% |
| 21 | 35 |  | 1,960,172 |  | 233,413 |  | 156,814 | 149\% | 11.91\% | 8.00\% |
| 22 | 26 |  | 1,546,009 |  | 162,861 |  | 123,681 | 132\% | 10.53\% | 8.00\% |
| 23 | 23 |  | 1,390,114 |  | 140,289 |  | 111,209 | 126\% | 10.09\% | 8.00\% |
| 24 | 25 |  | 1,340,644 |  | 209,731 |  | 107,252 | 196\% | 15.64\% | 8.00\% |
| 25 | 18 |  | 1,259,820 |  | 172,695 |  | 100,786 | 171\% | 13.71\% | 8.00\% |
| 26 | 9 |  | 549,908 |  | 47,126 |  | 43,993 | 107\% | 8.57\% | 8.00\% |
| 27 | 8 |  | 478,490 |  | 23,799 |  | 38,279 | 62\% | 4.97\% | 8.00\% |
| 28 | 5 |  | 294,436 |  | 21,823 |  | 23,555 | 93\% | 7.41\% | 8.00\% |
| 29 | 4 |  | 245,516 |  | 9,618 |  | 19,641 | 49\% | 3.92\% | 8.00\% |
| 30 | 7 |  | 485,006 |  | 52,072 |  | 38,800 | 134\% | 10.74\% | 8.00\% |
| 31 | 5 |  | 314,888 |  | 41,403 |  | 25,191 | 164\% | 13.15\% | 8.00\% |
| 32 | 2 |  | 99,079 |  | 6,484 |  | 7,926 | 82\% | 6.54\% | 8.00\% |
| 33 | 0 |  |  |  | - |  | , |  |  | 8.00\% |
| 34 | 1 |  | 57,981 |  | 152 |  | 4,638 | 3\% | 0.26\% | 8.00\% |
| 35 | 1 |  | 93,174 |  | 357 |  | 7,454 | 5\% | 0.38\% | 8.00\% |
| 36 | 2 |  | 98,520 |  | 6,336 |  | 7,882 | 80\% | 6.43\% | 8.00\% |
| 37 | 1 |  | 54,208 |  | 1,421 |  | 4,337 | 33\% | 2.62\% | 8.00\% |
| 38 | 0 |  | , |  | , |  | , |  |  | 8.00\% |
| 39 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 40 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 41 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 42 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 43 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| Total | 544 |  | 29,990,227 |  | 3,153,852 |  | 399,218 | 131\% | 10.52\% | 8.00\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL OVERTIME PAY EXPERIENCE FOR ALL YEARS MEN AND WOMEN

TABLE 12A
10-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 14,438 | \$ | 582,766,185 | \$ | 47,148,346 | \$ | 23,310,647 | 202\% | 8.09\% | 4.00\% |
| 1 | 35,547 |  | 1,463,391,765 |  | 151,336,811 |  | 58,535,671 | 259\% | 10.34\% | 4.00\% |
| 2 | 36,590 |  | 1,592,749,993 |  | 175,158,773 |  | 63,710,000 | 275\% | 11.00\% | 4.00\% |
| 3 | 34,555 |  | 1,559,739,930 |  | 179,688,263 |  | 62,389,597 | 288\% | 11.52\% | 4.00\% |
| 4 | 32,811 |  | 1,501,707,592 |  | 179,716,877 |  | 60,068,304 | 299\% | 11.97\% | 4.00\% |
| 5 | 29,472 |  | 1,382,732,256 |  | 167,271,735 |  | 55,309,290 | 302\% | 12.10\% | 4.00\% |
| 6 | 27,020 |  | 1,290,960,895 |  | 158,916,292 |  | 51,638,436 | 308\% | 12.31\% | 4.00\% |
| 7 | 24,928 |  | 1,222,246,206 |  | 151,981,117 |  | 48,889,848 | 311\% | 12.43\% | 4.00\% |
| 8 | 23,039 |  | 1,146,440,536 |  | 141,015,483 |  | 45,857,621 | 308\% | 12.30\% | 4.00\% |
| 9 | 21,637 |  | 1,100,484,705 |  | 135,953,378 |  | 44,019,388 | 309\% | 12.35\% | 4.00\% |
| 10 | 21,398 |  | 1,109,941,742 |  | 135,565,524 |  | 44,397,670 | 305\% | 12.21\% | 4.00\% |
| 11 | 20,506 |  | 1,085,359,373 |  | 130,926,667 |  | 43,414,375 | 302\% | 12.06\% | 4.00\% |
| 12 | 19,038 |  | 1,024,124,266 |  | 123,997,884 |  | 40,964,971 | 303\% | 12.11\% | 4.00\% |
| 13 | 18,175 |  | 994,578,141 |  | 118,116,169 |  | 39,783,126 | 297\% | 11.88\% | 4.00\% |
| 14 | 17,922 |  | 992,299,586 |  | 118,321,202 |  | 39,691,983 | 298\% | 11.92\% | 4.00\% |
| 15 | 17,538 |  | 978,907,766 |  | 116,419,487 |  | 39,156,311 | 297\% | 11.89\% | 4.00\% |
| 16 | 17,252 |  | 976,978,806 |  | 118,440,216 |  | 39,079,152 | 303\% | 12.12\% | 4.00\% |
| 17 | 17,302 |  | 988,352,988 |  | 121,322,675 |  | 39,534,120 | 307\% | 12.28\% | 4.00\% |
| 18 | 16,247 |  | 938,355,853 |  | 117,410,333 |  | 37,534,234 | 313\% | 12.51\% | 4.00\% |
| 19 | 15,410 |  | 904,206,588 |  | 116,565,952 |  | 36,168,264 | 322\% | 12.89\% | 4.00\% |
| 20 | 13,910 |  | 829,604,795 |  | 108,445,157 |  | 33,184,192 | 327\% | 13.07\% | 4.00\% |
| 21 | 12,709 |  | 769,923,369 |  | 101,877,359 |  | 30,796,935 | 331\% | 13.23\% | 4.00\% |
| 22 | 11,815 |  | 723,931,828 |  | 95,530,561 |  | 28,957,273 | 330\% | 13.20\% | 4.00\% |
| 23 | 10,513 |  | 644,653,777 |  | 85,436,180 |  | 25,786,151 | 331\% | 13.25\% | 4.00\% |
| 24 | 8,894 |  | 552,761,284 |  | 71,712,983 |  | 22,110,451 | 324\% | 12.97\% | 4.00\% |
| 25 | 7,150 |  | 449,893,577 |  | 58,656,567 |  | 17,995,743 | 326\% | 13.04\% | 4.00\% |
| 26 | 5,739 |  | 361,153,350 |  | 46,789,089 |  | 14,446,134 | 324\% | 12.96\% | 4.00\% |
| 27 | 4,477 |  | 286,389,573 |  | 37,727,392 |  | 11,455,583 | 329\% | 13.17\% | 4.00\% |
| 28 | 3,510 |  | 226,281,827 |  | 29,184,154 |  | 9,051,273 | 322\% | 12.90\% | 4.00\% |
| 29 | 2,816 |  | 176,592,448 |  | 22,744,334 |  | 7,063,698 | 322\% | 12.88\% | 4.00\% |
| 30 | 2,723 |  | 162,880,616 |  | 20,235,568 |  | 6,515,225 | 311\% | 12.42\% | 4.00\% |
| 31 | 2,268 |  | 134,540,935 |  | 16,420,219 |  | 5,381,637 | 305\% | 12.20\% | 4.00\% |
| 32 | 1,773 |  | 102,725,873 |  | 12,201,663 |  | 4,109,035 | 297\% | 11.88\% | 4.00\% |
| 33 | 1,332 |  | 75,892,170 |  | 8,616,471 |  | 3,035,687 | 284\% | 11.35\% | 4.00\% |
| 34 | 1,069 |  | 59,330,410 |  | 6,729,520 |  | 2,373,216 | 284\% | 11.34\% | 4.00\% |
| 35 | 897 |  | 49,672,087 |  | 5,266,605 |  | 1,986,883 | 265\% | 10.60\% | 4.00\% |
| 36 | 710 |  | 40,099,299 |  | 4,020,701 |  | 1,603,972 | 251\% | 10.03\% | 4.00\% |
| 37 | 535 |  | 30,347,031 |  | 2,800,650 |  | 1,213,881 | 231\% | 9.23\% | 4.00\% |
| 38 | 434 |  | 25,187,438 |  | 2,237,894 |  | 1,007,498 | 222\% | 8.88\% | 4.00\% |
| 39 | 303 |  | 17,943,131 |  | 1,624,185 |  | 717,725 | 226\% | 9.05\% | 4.00\% |
| 40 | 193 |  | 11,321,101 |  | 998,181 |  | 452,844 | 220\% | 8.82\% | 4.00\% |
| 41 | 126 |  | 7,489,401 |  | 602,518 |  | 299,576 | 201\% | 8.04\% | 4.00\% |
| 42 | 90 |  | 5,516,178 |  | 366,025 |  | 220,647 | 166\% | 6.64\% | 4.00\% |
| 43 | 63 |  | 3,760,476 |  | 284,145 |  | 150,419 | 189\% | 7.56\% | 4.00\% |
| 44 | 41 |  | 2,429,507 |  | 183,735 |  | 97,180 | 189\% | 7.56\% | 4.00\% |
| 45 | 31 |  | 1,987,065 |  | 147,128 |  | 79,483 | 185\% | 7.40\% | 4.00\% |
| Total | 554,946 |  | 28,588,633,717 |  | 3,446,112,168 |  | 143,545,349 | $301 \%$ | 12.05\% | 4.00\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL OVERTIME PAY EXPERIENCE FOR ALL YEARS MEN AND WOMEN

TABLE 12A

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 14,438 | \$ | 582,766,185 | \$ | 47,148,346 | \$ | 46,621,295 | 101\% | 8.09\% | 8.00\% |
| 1 | 35,547 |  | 1,463,391,765 |  | 151,336,811 |  | 117,071,341 | 129\% | 10.34\% | 8.00\% |
| 2 | 36,590 |  | 1,592,749,993 |  | 175,158,773 |  | 127,419,999 | 137\% | 11.00\% | 8.00\% |
| 3 | 34,555 |  | 1,559,739,930 |  | 179,688,263 |  | 124,779,194 | 144\% | 11.52\% | 8.00\% |
| 4 | 32,811 |  | 1,501,707,592 |  | 179,716,877 |  | 120,136,607 | 150\% | 11.97\% | 8.00\% |
| 5 | 29,472 |  | 1,382,732,256 |  | 167,271,735 |  | 110,618,580 | 151\% | 12.10\% | 8.00\% |
| 6 | 27,020 |  | 1,290,960,895 |  | 158,916,292 |  | 103,276,872 | 154\% | 12.31\% | 8.00\% |
| 7 | 24,928 |  | 1,222,246,206 |  | 151,981,117 |  | 97,779,696 | 155\% | 12.43\% | 8.00\% |
| 8 | 23,039 |  | 1,146,440,536 |  | 141,015,483 |  | 91,715,243 | 154\% | 12.30\% | 8.00\% |
| 9 | 21,637 |  | 1,100,484,705 |  | 135,953,378 |  | 88,038,776 | 154\% | 12.35\% | 8.00\% |
| 10 | 21,398 |  | 1,109,941,742 |  | 135,565,524 |  | 88,795,339 | 153\% | 12.21\% | 8.00\% |
| 11 | 20,506 |  | 1,085,359,373 |  | 130,926,667 |  | 86,828,750 | 151\% | 12.06\% | 8.00\% |
| 12 | 19,038 |  | 1,024,124,266 |  | 123,997,884 |  | 81,929,941 | 151\% | 12.11\% | 8.00\% |
| 13 | 18,175 |  | 994,578,141 |  | 118,116,169 |  | 79,566,251 | 148\% | 11.88\% | 8.00\% |
| 14 | 17,922 |  | 992,299,586 |  | 118,321,202 |  | 79,383,967 | 149\% | 11.92\% | 8.00\% |
| 15 | 17,538 |  | 978,907,766 |  | 116,419,487 |  | 78,312,621 | 149\% | 11.89\% | 8.00\% |
| 16 | 17,252 |  | 976,978,806 |  | 118,440,216 |  | 78,158,304 | 152\% | 12.12\% | 8.00\% |
| 17 | 17,302 |  | 988,352,988 |  | 121,322,675 |  | 79,068,239 | 153\% | 12.28\% | 8.00\% |
| 18 | 16,247 |  | 938,355,853 |  | 117,410,333 |  | 75,068,468 | 156\% | 12.51\% | 8.00\% |
| 19 | 15,410 |  | 904,206,588 |  | 116,565,952 |  | 72,336,527 | 161\% | 12.89\% | 8.00\% |
| 20 | 13,910 |  | 829,604,795 |  | 108,445,157 |  | 66,368,384 | 163\% | 13.07\% | 8.00\% |
| 21 | 12,709 |  | 769,923,369 |  | 101,877,359 |  | 61,593,870 | 165\% | 13.23\% | 8.00\% |
| 22 | 11,815 |  | 723,931,828 |  | 95,530,561 |  | 57,914,546 | 165\% | 13.20\% | 8.00\% |
| 23 | 10,513 |  | 644,653,777 |  | 85,436,180 |  | 51,572,302 | 166\% | 13.25\% | 8.00\% |
| 24 | 8,894 |  | 552,761,284 |  | 71,712,983 |  | 44,220,903 | 162\% | 12.97\% | 8.00\% |
| 25 | 7,150 |  | 449,893,577 |  | 58,656,567 |  | 35,991,486 | 163\% | 13.04\% | 8.00\% |
| 26 | 5,739 |  | 361,153,350 |  | 46,789,089 |  | 28,892,268 | 162\% | 12.96\% | 8.00\% |
| 27 | 4,477 |  | 286,389,573 |  | 37,727,392 |  | 22,911,166 | 165\% | 13.17\% | 8.00\% |
| 28 | 3,510 |  | 226,281,827 |  | 29,184,154 |  | 18,102,546 | 161\% | 12.90\% | 8.00\% |
| 29 | 2,816 |  | 176,592,448 |  | 22,744,334 |  | 14,127,396 | 161\% | 12.88\% | 8.00\% |
| 30 | 2,723 |  | 162,880,616 |  | 20,235,568 |  | 13,030,449 | 155\% | 12.42\% | 8.00\% |
| 31 | 2,268 |  | 134,540,935 |  | 16,420,219 |  | 10,763,275 | 153\% | 12.20\% | 8.00\% |
| 32 | 1,773 |  | 102,725,873 |  | 12,201,663 |  | 8,218,070 | 148\% | 11.88\% | 8.00\% |
| 33 | 1,332 |  | 75,892,170 |  | 8,616,471 |  | 6,071,374 | 142\% | 11.35\% | 8.00\% |
| 34 | 1,069 |  | 59,330,410 |  | 6,729,520 |  | 4,746,433 | 142\% | 11.34\% | 8.00\% |
| 35 | 897 |  | 49,672,087 |  | 5,266,605 |  | 3,973,767 | 133\% | 10.60\% | 8.00\% |
| 36 | 710 |  | 40,099,299 |  | 4,020,701 |  | 3,207,944 | 125\% | 10.03\% | 8.00\% |
| 37 | 535 |  | 30,347,031 |  | 2,800,650 |  | 2,427,762 | 115\% | 9.23\% | 8.00\% |
| 38 | 434 |  | 25,187,438 |  | 2,237,894 |  | 2,014,995 | 111\% | 8.88\% | 8.00\% |
| 39 | 303 |  | 17,943,131 |  | 1,624,185 |  | 1,435,450 | 113\% | 9.05\% | 8.00\% |
| 40 | 193 |  | 11,321,101 |  | 998,181 |  | 905,688 | 110\% | 8.82\% | 8.00\% |
| 41 | 126 |  | 7,489,401 |  | 602,518 |  | 599,152 | 101\% | 8.04\% | 8.00\% |
| 42 | 90 |  | 5,516,178 |  | 366,025 |  | 441,294 | 83\% | 6.64\% | 8.00\% |
| 43 | 63 |  | 3,760,476 |  | 284,145 |  | 300,838 | 94\% | 7.56\% | 8.00\% |
| 44 | 41 |  | 2,429,507 |  | 183,735 |  | 194,361 | 95\% | 7.56\% | 8.00\% |
| 45 | 31 |  | 1,987,065 |  | 147,128 |  | 158,965 | 93\% | 7.40\% | 8.00\% |
| Total | 554,946 |  | 28,588,633,717 |  | 3,446,112,168 |  | 287,090,697 | 151\% | 12.05\% | 8.00\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL OVERTIME PAY EXPERIENCE BEFORE SERVICE RETIREMENT MEN AND WOMEN

TABLE 12B
10-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 2 | \$ | 100,367 | \$ | 4,930 | \$ | 4,015 | 123\% | 4.91\% | 4.00\% |
| 1 | 10 |  | 772,191 |  | 93,125 |  | 30,888 | 301\% | 12.06\% | 4.00\% |
| 2 | 32 |  | 1,417,893 |  | 132,691 |  | 56,716 | 234\% | 9.36\% | 4.00\% |
| 3 | 49 |  | 2,331,659 |  | 287,792 |  | 93,266 | 309\% | 12.34\% | 4.00\% |
| 4 | 175 |  | 7,599,054 |  | 911,782 |  | 303,962 | 300\% | 12.00\% | 4.00\% |
| 5 | 196 |  | 8,832,512 |  | 883,046 |  | 353,300 | 250\% | 10.00\% | 4.00\% |
| 6 | 202 |  | 9,119,892 |  | 918,973 |  | 364,796 | 252\% | 10.08\% | 4.00\% |
| 7 | 244 |  | 11,470,666 |  | 1,469,171 |  | 458,827 | 320\% | 12.81\% | 4.00\% |
| 8 | 228 |  | 10,963,496 |  | 1,218,967 |  | 438,540 | 278\% | 11.12\% | 4.00\% |
| 9 | 253 |  | 12,296,875 |  | 1,327,423 |  | 491,875 | 270\% | 10.79\% | 4.00\% |
| 10 | 307 |  | 15,404,660 |  | 1,776,122 |  | 616,186 | 288\% | 11.53\% | 4.00\% |
| 11 | 300 |  | 14,429,947 |  | 1,294,782 |  | 577,198 | 224\% | 8.97\% | 4.00\% |
| 12 | 345 |  | 17,218,236 |  | 1,880,037 |  | 688,729 | 273\% | 10.92\% | 4.00\% |
| 13 | 426 |  | 20,144,665 |  | 2,923,220 |  | 805,787 | 363\% | 14.51\% | 4.00\% |
| 14 | 308 |  | 16,998,995 |  | 1,807,878 |  | 679,960 | 266\% | 10.64\% | 4.00\% |
| 15 | 343 |  | 19,009,070 |  | 2,030,973 |  | 760,363 | 267\% | 10.68\% | 4.00\% |
| 16 | 328 |  | 17,366,272 |  | 1,642,759 |  | 694,651 | 236\% | 9.46\% | 4.00\% |
| 17 | 372 |  | 21,098,546 |  | 2,309,569 |  | 843,942 | 274\% | 10.95\% | 4.00\% |
| 18 | 366 |  | 21,290,435 |  | 2,277,504 |  | 851,617 | 267\% | 10.70\% | 4.00\% |
| 19 | 420 |  | 23,789,813 |  | 2,628,884 |  | 951,593 | 276\% | 11.05\% | 4.00\% |
| 20 | 521 |  | 29,486,772 |  | 3,137,382 |  | 1,179,471 | 266\% | 10.64\% | 4.00\% |
| 21 | 463 |  | 26,441,165 |  | 3,213,204 |  | 1,057,647 | 304\% | 12.15\% | 4.00\% |
| 22 | 457 |  | 27,393,892 |  | 3,736,345 |  | 1,095,756 | 341\% | 13.64\% | 4.00\% |
| 23 | 484 |  | 29,543,326 |  | 3,639,842 |  | 1,181,733 | 308\% | 12.32\% | 4.00\% |
| 24 | 536 |  | 34,697,913 |  | 4,221,624 |  | 1,387,917 | 304\% | 12.17\% | 4.00\% |
| 25 | 630 |  | 40,382,369 |  | 5,314,310 |  | 1,615,295 | 329\% | 13.16\% | 4.00\% |
| 26 | 492 |  | 32,459,438 |  | 4,236,513 |  | 1,298,378 | 326\% | 13.05\% | 4.00\% |
| 27 | 415 |  | 27,141,972 |  | 3,667,915 |  | 1,085,679 | 338\% | 13.51\% | 4.00\% |
| 28 | 290 |  | 19,018,383 |  | 2,299,666 |  | 760,735 | 302\% | 12.09\% | 4.00\% |
| 29 | 287 |  | 19,607,191 |  | 2,704,307 |  | 784,288 | 345\% | 13.79\% | 4.00\% |
| 30 | 319 |  | 19,743,315 |  | 2,723,055 |  | 789,733 | 345\% | 13.79\% | 4.00\% |
| 31 | 272 |  | 17,585,645 |  | 2,408,710 |  | 703,426 | 342\% | 13.70\% | 4.00\% |
| 32 | 226 |  | 13,433,089 |  | 1,805,000 |  | 537,324 | 336\% | 13.44\% | 4.00\% |
| 33 | 195 |  | 11,569,623 |  | 1,513,319 |  | 462,785 | 327\% | 13.08\% | 4.00\% |
| 34 | 185 |  | 10,422,613 |  | 1,435,401 |  | 416,905 | 344\% | 13.77\% | 4.00\% |
| 35 | 167 |  | 9,661,867 |  | 1,366,780 |  | 386,475 | 354\% | 14.15\% | 4.00\% |
| 36 | 130 |  | 7,734,536 |  | 980,544 |  | 309,381 | 317\% | 12.68\% | 4.00\% |
| 37 | 138 |  | 8,095,710 |  | 1,071,636 |  | 323,828 | 331\% | 13.24\% | 4.00\% |
| 38 | 85 |  | 5,124,345 |  | 453,349 |  | 204,974 | 221\% | 8.85\% | 4.00\% |
| 39 | 64 |  | 3,596,821 |  | 396,588 |  | 143,873 | 276\% | 11.03\% | 4.00\% |
| 40 | 41 |  | 2,392,789 |  | 301,935 |  | 95,712 | 315\% | 12.62\% | 4.00\% |
| 41 | 25 |  | 1,498,139 |  | 172,264 |  | 59,926 | 287\% | 11.50\% | 4.00\% |
| 42 | 20 |  | 1,133,035 |  | 89,755 |  | 45,321 | 198\% | 7.92\% | 4.00\% |
| 43 | 7 |  | 451,385 |  | 35,627 |  | 18,055 | 197\% | 7.89\% | 4.00\% |
| 44 | 10 |  | 679,504 |  | 55,022 |  | 27,180 | 202\% | 8.10\% | 4.00\% |
| 45 | 4 |  | 194,538 |  | 36,674 |  | 7,782 | 471\% | 18.85\% | 4.00\% |
| Total | 11,369 |  | 651,144,621 |  | 78,836,395 |  | 26,045,785 | 303\% | 12.11\% | 4.00\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL OVERTIME PAY EXPERIENCE BEFORE SERVICE RETIREMENT MEN AND WOMEN

TABLE 12B
10-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 2 | \$ | 100,367 | \$ | 4,930 | \$ | 8,029 | 61\% | 4.91\% | 8.00\% |
| 1 | 10 |  | 772,191 |  | 93,125 |  | 61,775 | 151\% | 12.06\% | 8.00\% |
| 2 | 32 |  | 1,417,893 |  | 132,691 |  | 113,431 | 117\% | 9.36\% | 8.00\% |
| 3 | 49 |  | 2,331,659 |  | 287,792 |  | 186,533 | 154\% | 12.34\% | 8.00\% |
| 4 | 175 |  | 7,599,054 |  | 911,782 |  | 607,924 | 150\% | 12.00\% | 8.00\% |
| 5 | 196 |  | 8,832,512 |  | 883,046 |  | 706,601 | 125\% | 10.00\% | 8.00\% |
| 6 | 202 |  | 9,119,892 |  | 918,973 |  | 729,591 | 126\% | 10.08\% | 8.00\% |
| 7 | 244 |  | 11,470,666 |  | 1,469,171 |  | 917,653 | 160\% | 12.81\% | 8.00\% |
| 8 | 228 |  | 10,963,496 |  | 1,218,967 |  | 877,080 | 139\% | 11.12\% | 8.00\% |
| 9 | 253 |  | 12,296,875 |  | 1,327,423 |  | 983,750 | 135\% | 10.79\% | 8.00\% |
| 10 | 307 |  | 15,404,660 |  | 1,776,122 |  | 1,232,373 | 144\% | 11.53\% | 8.00\% |
| 11 | 300 |  | 14,429,947 |  | 1,294,782 |  | 1,154,396 | 112\% | 8.97\% | 8.00\% |
| 12 | 345 |  | 17,218,236 |  | 1,880,037 |  | 1,377,459 | 136\% | 10.92\% | 8.00\% |
| 13 | 426 |  | 20,144,665 |  | 2,923,220 |  | 1,611,573 | 181\% | 14.51\% | 8.00\% |
| 14 | 308 |  | 16,998,995 |  | 1,807,878 |  | 1,359,920 | 133\% | 10.64\% | 8.00\% |
| 15 | 343 |  | 19,009,070 |  | 2,030,973 |  | 1,520,726 | 134\% | 10.68\% | 8.00\% |
| 16 | 328 |  | 17,366,272 |  | 1,642,759 |  | 1,389,302 | 118\% | 9.46\% | 8.00\% |
| 17 | 372 |  | 21,098,546 |  | 2,309,569 |  | 1,687,884 | 137\% | 10.95\% | 8.00\% |
| 18 | 366 |  | 21,290,435 |  | 2,277,504 |  | 1,703,235 | 134\% | 10.70\% | 8.00\% |
| 19 | 420 |  | 23,789,813 |  | 2,628,884 |  | 1,903,185 | 138\% | 11.05\% | 8.00\% |
| 20 | 521 |  | 29,486,772 |  | 3,137,382 |  | 2,358,942 | 133\% | 10.64\% | 8.00\% |
| 21 | 463 |  | 26,441,165 |  | 3,213,204 |  | 2,115,293 | 152\% | 12.15\% | 8.00\% |
| 22 | 457 |  | 27,393,892 |  | 3,736,345 |  | 2,191,511 | 170\% | 13.64\% | 8.00\% |
| 23 | 484 |  | 29,543,326 |  | 3,639,842 |  | 2,363,466 | 154\% | 12.32\% | 8.00\% |
| 24 | 536 |  | 34,697,913 |  | 4,221,624 |  | 2,775,833 | 152\% | 12.17\% | 8.00\% |
| 25 | 630 |  | 40,382,369 |  | 5,314,310 |  | 3,230,590 | 164\% | 13.16\% | 8.00\% |
| 26 | 492 |  | 32,459,438 |  | 4,236,513 |  | 2,596,755 | 163\% | 13.05\% | 8.00\% |
| 27 | 415 |  | 27,141,972 |  | 3,667,915 |  | 2,171,358 | 169\% | 13.51\% | 8.00\% |
| 28 | 290 |  | 19,018,383 |  | 2,299,666 |  | 1,521,471 | 151\% | 12.09\% | 8.00\% |
| 29 | 287 |  | 19,607,191 |  | 2,704,307 |  | 1,568,575 | 172\% | 13.79\% | 8.00\% |
| 30 | 319 |  | 19,743,315 |  | 2,723,055 |  | 1,579,465 | 172\% | 13.79\% | 8.00\% |
| 31 | 272 |  | 17,585,645 |  | 2,408,710 |  | 1,406,852 | 171\% | 13.70\% | 8.00\% |
| 32 | 226 |  | 13,433,089 |  | 1,805,000 |  | 1,074,647 | 168\% | 13.44\% | 8.00\% |
| 33 | 195 |  | 11,569,623 |  | 1,513,319 |  | 925,570 | 164\% | 13.08\% | 8.00\% |
| 34 | 185 |  | 10,422,613 |  | 1,435,401 |  | 833,809 | 172\% | 13.77\% | 8.00\% |
| 35 | 167 |  | 9,661,867 |  | 1,366,780 |  | 772,949 | 177\% | 14.15\% | 8.00\% |
| 36 | 130 |  | 7,734,536 |  | 980,544 |  | 618,763 | 158\% | 12.68\% | 8.00\% |
| 37 | 138 |  | 8,095,710 |  | 1,071,636 |  | 647,657 | 165\% | 13.24\% | 8.00\% |
| 38 | 85 |  | 5,124,345 |  | 453,349 |  | 409,948 | 111\% | 8.85\% | 8.00\% |
| 39 | 64 |  | 3,596,821 |  | 396,588 |  | 287,746 | 138\% | 11.03\% | 8.00\% |
| 40 | 41 |  | 2,392,789 |  | 301,935 |  | 191,423 | 158\% | 12.62\% | 8.00\% |
| 41 | 25 |  | 1,498,139 |  | 172,264 |  | 119,851 | 144\% | 11.50\% | 8.00\% |
| 42 | 20 |  | 1,133,035 |  | 89,755 |  | 90,643 | 99\% | 7.92\% | 8.00\% |
| 43 | 7 |  | 451,385 |  | 35,627 |  | 36,111 | 99\% | 7.89\% | 8.00\% |
| 44 | 10 |  | 679,504 |  | 55,022 |  | 54,360 | 101\% | 8.10\% | 8.00\% |
| 45 | 4 |  | 194,538 |  | 36,674 |  | 15,563 | 236\% | 18.85\% | 8.00\% |
| Total | 11,369 |  | 651,144,621 |  | 78,836,395 |  | 52,091,570 | 151\% | 12.11\% | 8.00\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL OVERTIME PAY EXPERIENCE BEFORE DISABLED RETIREMENT MEN AND WOMEN

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 1 | \$ | 34,171 | \$ | 1,987 | \$ | 1,367 | 145\% | 5.81\% | 4.00\% |
| 1 | 9 |  | 336,169 |  | 34,352 |  | 13,447 | 255\% | 10.22\% | 4.00\% |
| 2 | 9 |  | 446,872 |  | 21,353 |  | 17,875 | 119\% | 4.78\% | 4.00\% |
| 3 | 12 |  | 413,755 |  | 39,409 |  | 16,550 | 238\% | 9.52\% | 4.00\% |
| 4 | 17 |  | 652,084 |  | 63,963 |  | 26,083 | 245\% | 9.81\% | 4.00\% |
| 5 | 17 |  | 752,125 |  | 66,794 |  | 30,085 | 222\% | 8.88\% | 4.00\% |
| 6 | 41 |  | 1,691,915 |  | 147,353 |  | 67,677 | 218\% | 8.71\% | 4.00\% |
| 7 | 33 |  | 1,404,330 |  | 150,342 |  | 56,173 | 268\% | 10.71\% | 4.00\% |
| 8 | 50 |  | 2,313,408 |  | 188,358 |  | 92,536 | 204\% | 8.14\% | 4.00\% |
| 9 | 53 |  | 2,516,474 |  | 253,659 |  | 100,659 | 252\% | 10.08\% | 4.00\% |
| 10 | 96 |  | 4,554,846 |  | 423,764 |  | 182,194 | 233\% | 9.30\% | 4.00\% |
| 11 | 81 |  | 3,705,239 |  | 428,413 |  | 148,210 | 289\% | 11.56\% | 4.00\% |
| 12 | 73 |  | 3,310,479 |  | 283,051 |  | 132,419 | 214\% | 8.55\% | 4.00\% |
| 13 | 85 |  | 4,160,246 |  | 460,056 |  | 166,410 | 276\% | 11.06\% | 4.00\% |
| 14 | 86 |  | 4,428,921 |  | 422,869 |  | 177,157 | 239\% | 9.55\% | 4.00\% |
| 15 | 72 |  | 3,771,219 |  | 404,753 |  | 150,849 | 268\% | 10.73\% | 4.00\% |
| 16 | 91 |  | 4,573,518 |  | 398,353 |  | 182,941 | 218\% | 8.71\% | 4.00\% |
| 17 | 91 |  | 4,579,934 |  | 417,127 |  | 183,197 | 228\% | 9.11\% | 4.00\% |
| 18 | 73 |  | 3,620,396 |  | 328,962 |  | 144,816 | 227\% | 9.09\% | 4.00\% |
| 19 | 70 |  | 3,909,112 |  | 407,018 |  | 156,364 | 260\% | 10.41\% | 4.00\% |
| 20 | 70 |  | 4,044,648 |  | 416,054 |  | 161,786 | 257\% | 10.29\% | 4.00\% |
| 21 | 75 |  | 3,819,942 |  | 435,135 |  | 152,798 | 285\% | 11.39\% | 4.00\% |
| 22 | 48 |  | 2,546,066 |  | 296,487 |  | 101,843 | 291\% | 11.64\% | 4.00\% |
| 23 | 54 |  | 2,933,426 |  | 285,260 |  | 117,337 | 243\% | 9.72\% | 4.00\% |
| 24 | 42 |  | 2,212,636 |  | 265,729 |  | 88,505 | 300\% | 12.01\% | 4.00\% |
| 25 | 29 |  | 1,764,048 |  | 219,326 |  | 70,562 | 311\% | 12.43\% | 4.00\% |
| 26 | 20 |  | 1,176,765 |  | 213,831 |  | 47,071 | 454\% | 18.17\% | 4.00\% |
| 27 | 19 |  | 988,836 |  | 68,896 |  | 39,553 | 174\% | 6.97\% | 4.00\% |
| 28 | 10 |  | 517,729 |  | 49,475 |  | 20,709 | 239\% | 9.56\% | 4.00\% |
| 29 | 6 |  | 351,549 |  | 19,435 |  | 14,062 | 138\% | 5.53\% | 4.00\% |
| 30 | 12 |  | 713,175 |  | 58,526 |  | 28,527 | 205\% | 8.21\% | 4.00\% |
| 31 | 11 |  | 610,001 |  | 45,861 |  | 24,400 | 188\% | 7.52\% | 4.00\% |
| 32 | 4 |  | 247,057 |  | 9,543 |  | 9,882 | 97\% | 3.86\% | 4.00\% |
| 33 | 1 |  | 44,932 |  | 5,693 |  | 1,797 | 317\% | 12.67\% | 4.00\% |
| 34 | 2 |  | 97,713 |  | 8,581 |  | 3,909 | 220\% | 8.78\% | 4.00\% |
| 35 | 3 |  | 168,280 |  | 1,050 |  | 6,731 | 16\% | 0.62\% | 4.00\% |
| 36 | 3 |  | 133,791 |  | 6,467 |  | 5,352 | 121\% | 4.83\% | 4.00\% |
| 37 | 1 |  | 54,208 |  | 1,421 |  | 2,168 | 66\% | 2.62\% | 4.00\% |
| 38 | 0 |  | - |  | - |  | - |  |  | 4.00\% |
| 39 | 0 |  | - |  | - |  | - |  |  | 4.00\% |
| 40 | 0 |  | - |  | - |  | - |  |  | 4.00\% |
| 41 | 0 |  | - |  | - |  | - |  |  | 4.00\% |
| 42 | 0 |  | - |  | - |  | - |  |  | 4.00\% |
| 43 | 0 |  | - |  | - |  | - |  |  | 4.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 4.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 4.00\% |
| Total | 1,470 |  | 73,600,015 |  | 7,348,706 |  | 2,944,001 | 250\% | 9.98\% | 4.00\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL OVERTIME PAY EXPERIENCE BEFORE DISABLED RETIREMENT MEN AND WOMEN

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 1 | \$ | 34,171 | \$ | 1,987 | \$ | 2,734 | 73\% | 5.81\% | 8.00\% |
| 1 | 9 |  | 336,169 |  | 34,352 |  | 26,894 | 128\% | 10.22\% | 8.00\% |
| 2 | 9 |  | 446,872 |  | 21,353 |  | 35,750 | 60\% | 4.78\% | 8.00\% |
| 3 | 12 |  | 413,755 |  | 39,409 |  | 33,100 | 119\% | 9.52\% | 8.00\% |
| 4 | 17 |  | 652,084 |  | 63,963 |  | 52,167 | 123\% | 9.81\% | 8.00\% |
| 5 | 17 |  | 752,125 |  | 66,794 |  | 60,170 | 111\% | 8.88\% | 8.00\% |
| 6 | 41 |  | 1,691,915 |  | 147,353 |  | 135,353 | 109\% | 8.71\% | 8.00\% |
| 7 | 33 |  | 1,404,330 |  | 150,342 |  | 112,346 | 134\% | 10.71\% | 8.00\% |
| 8 | 50 |  | 2,313,408 |  | 188,358 |  | 185,073 | 102\% | 8.14\% | 8.00\% |
| 9 | 53 |  | 2,516,474 |  | 253,659 |  | 201,318 | 126\% | 10.08\% | 8.00\% |
| 10 | 96 |  | 4,554,846 |  | 423,764 |  | 364,388 | 116\% | 9.30\% | 8.00\% |
| 11 | 81 |  | 3,705,239 |  | 428,413 |  | 296,419 | 145\% | 11.56\% | 8.00\% |
| 12 | 73 |  | 3,310,479 |  | 283,051 |  | 264,838 | 107\% | 8.55\% | 8.00\% |
| 13 | 85 |  | 4,160,246 |  | 460,056 |  | 332,820 | 138\% | 11.06\% | 8.00\% |
| 14 | 86 |  | 4,428,921 |  | 422,869 |  | 354,314 | 119\% | 9.55\% | 8.00\% |
| 15 | 72 |  | 3,771,219 |  | 404,753 |  | 301,698 | 134\% | 10.73\% | 8.00\% |
| 16 | 91 |  | 4,573,518 |  | 398,353 |  | 365,881 | 109\% | 8.71\% | 8.00\% |
| 17 | 91 |  | 4,579,934 |  | 417,127 |  | 366,395 | 114\% | 9.11\% | 8.00\% |
| 18 | 73 |  | 3,620,396 |  | 328,962 |  | 289,632 | 114\% | 9.09\% | 8.00\% |
| 19 | 70 |  | 3,909,112 |  | 407,018 |  | 312,729 | 130\% | 10.41\% | 8.00\% |
| 20 | 70 |  | 4,044,648 |  | 416,054 |  | 323,572 | 129\% | 10.29\% | 8.00\% |
| 21 | 75 |  | 3,819,942 |  | 435,135 |  | 305,595 | 142\% | 11.39\% | 8.00\% |
| 22 | 48 |  | 2,546,066 |  | 296,487 |  | 203,685 | 146\% | 11.64\% | 8.00\% |
| 23 | 54 |  | 2,933,426 |  | 285,260 |  | 234,674 | 122\% | 9.72\% | 8.00\% |
| 24 | 42 |  | 2,212,636 |  | 265,729 |  | 177,011 | 150\% | 12.01\% | 8.00\% |
| 25 | 29 |  | 1,764,048 |  | 219,326 |  | 141,124 | 155\% | 12.43\% | 8.00\% |
| 26 | 20 |  | 1,176,765 |  | 213,831 |  | 94,141 | 227\% | 18.17\% | 8.00\% |
| 27 | 19 |  | 988,836 |  | 68,896 |  | 79,107 | 87\% | 6.97\% | 8.00\% |
| 28 | 10 |  | 517,729 |  | 49,475 |  | 41,418 | 119\% | 9.56\% | 8.00\% |
| 29 | 6 |  | 351,549 |  | 19,435 |  | 28,124 | 69\% | 5.53\% | 8.00\% |
| 30 | 12 |  | 713,175 |  | 58,526 |  | 57,054 | 103\% | 8.21\% | 8.00\% |
| 31 | 11 |  | 610,001 |  | 45,861 |  | 48,800 | 94\% | 7.52\% | 8.00\% |
| 32 | 4 |  | 247,057 |  | 9,543 |  | 19,765 | 48\% | 3.86\% | 8.00\% |
| 33 | 1 |  | 44,932 |  | 5,693 |  | 3,595 | 158\% | 12.67\% | 8.00\% |
| 34 | 2 |  | 97,713 |  | 8,581 |  | 7,817 | 110\% | 8.78\% | 8.00\% |
| 35 | 3 |  | 168,280 |  | 1,050 |  | 13,462 | 8\% | 0.62\% | 8.00\% |
| 36 | 3 |  | 133,791 |  | 6,467 |  | 10,703 | 60\% | 4.83\% | 8.00\% |
| 37 | 1 |  | 54,208 |  | 1,421 |  | 4,337 | 33\% | 2.62\% | 8.00\% |
| 38 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 39 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 40 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 41 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 42 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 43 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| Total | 1,470 |  | 73,600,015 |  | 7,348,706 |  | 5,888,001 | 125\% | 9.98\% | 8.00\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - GENERAL

OVERTIME PAY EXPERIENCE FOR ALL YEARS

## MEN AND WOMEN

| Plan <br> Year | TABLE 12D |  |  | Actual Overtime |  | Expected Overtime |  | 10-YEAR PERIOD ENDING 6/30/2013 <br> Increase \% |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending <br> June 30, | Life Years Exposed | Salary during the Year |  |  |  | Actual / <br> Expected | $\begin{aligned} & \hline \text { Actual } \\ & (4) /(3) \\ & \hline \end{aligned}$ | Expected $(5) /(3)$ |
| (1) | (2) |  | (3) |  | (4) |  |  |  | (5) | (6) | (7) | (8) |
| 2004 | 50,709 | \$ | 2,198,707,720 | \$ | 238,446,858 | \$ | 87,948,309 | 271\% | 10.84\% | 4.00\% |
| 2005 | 52,158 |  | 2,327,340,429 |  | 261,872,345 |  | 93,093,617 | 281\% | 11.25\% | 4.00\% |
| 2006 | 52,741 |  | 2,484,282,609 |  | 278,407,296 |  | 99,371,304 | 280\% | 11.21\% | 4.00\% |
| 2007 | 53,658 |  | 2,621,119,731 |  | 315,953,015 |  | 104,844,789 | 301\% | 12.05\% | 4.00\% |
| 2008 | 55,625 |  | 2,848,649,961 |  | 362,641,861 |  | 113,945,998 | 318\% | 12.73\% | 4.00\% |
| 2009 | 57,684 |  | 3,053,009,445 |  | 394,606,570 |  | 122,120,378 | 323\% | 12.93\% | 4.00\% |
| 2010 | 58,367 |  | 3,210,644,396 |  | 392,120,647 |  | 128,425,776 | 305\% | 12.21\% | 4.00\% |
| 2011 | 57,535 |  | 3,237,288,696 |  | 397,987,078 |  | 129,491,548 | 307\% | 12.29\% | 4.00\% |
| 2012 | 57,642 |  | 3,287,342,848 |  | 398,896,690 |  | 131,493,714 | 303\% | 12.13\% | 4.00\% |
| 2013 | 58,913 |  | 3,325,785,788 |  | 405,643,459 |  | 133,031,432 | 305\% | 12.20\% | 4.00\% |
| Total | 555,032 |  | 28,594,171,623 |  | 3,446,575,819 |  | 1,143,766,865 | 301\% | 12.05\% | 4.00\% |



| TableNumber | Table Type | NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT EXPERIENCE STUDY RESULTS OVERVIEW |  |  |  |  | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 4-YEAR PERIOD ENDING 6/30/2013* |  | 10-YEAR PERIOD ENDING 6/30/2013* |  |  |  |
|  |  | Expected | Average Number of Decrements per Year | Ratio of Actual to |  | Average Number of Decrements per Year |  |
|  |  |  |  | Expected | Proposed |  |  |
| Active Member Ordinary Mortality |  |  |  |  |  |  | Minor Assumption. The current assumption is reasonable. |
| 8A | Men | 107\% | 53 | 120\% | 120\% | 57 |  |
| 8B | Women | 168\% | 6 | 192\% | 192\% | 7 |  |
| 8 C | Men \& Women | 112\% | 59 | 125\% | 125\% | 64 |  |
| 8D | By Year |  |  |  |  |  |  |
| 9 A | Active Member Accidental Mortality | 14\% | 1 | 11\% | 45\% | 0 | Minor Assumption. We recommend a lower assumption. |
| 9B | By Year |  |  |  |  |  |  |
|  | Active Member Ordinary Disability |  |  |  |  |  | We recommend raising Ordinary Disability rates for Women. |
| 10A | Men | 93\% | 98 | 93\% | 93\% | 94 |  |
| 10B | Women | 239\% | 40 | 215\% | 153\% | 34 |  |
| 10 C | Men \& Women | 113\% | 138 | 110\% | 104\% | 128 |  |
| 10 D | By Year |  |  |  |  |  |  |
|  | Active Member Accidental Disability |  |  |  |  |  | Minor Assumption. We recommend lowering Accidental Disability |
| 11A | Men | 8\% | 1 | 34\% | 69\% | 2 | rates for Men. |
| 11B | Women | 23\% | 0 | 104\% | 104\% | 1 |  |
| 11C | Men \& Women | 10\% | 1 | 45\% | 78\% | 3 |  |
| 11D | By Year |  |  |  |  |  |  |
|  | Salary Increases** | Expected | Actual | Expected | Proposed | Actual |  |
| 12A | Total | 4.19\% | 3.41\% | 4.32\% | 4.32\% | 3.90\% | Overall, experience has slightly outpaced assumption, especially when adjusted for actual versus expected inflation. |
| 12B | Merit Only | 0.69\% | 0.70\% | 0.82\% | 0.82\% | 0.78\% |  |
|  | General Increase over Inflation | 1.00\% | 0.37\% | 1.00\% | 1.00\% | 0.78\% |  |
| 12 C | By Year |  |  |  |  |  |  |
|  | Overtime Pay** | Expected | Actual | Expected | Proposed | Actual | Experience has been close to the expected assumption. Members are working less Overtime before becoming disabled. |
| 13A | For All Years | 8.00\% | 9.21\% | 8.00\% | 8.00\% | 8.22\% |  |
| 13B | In Year Before Service Retirement | 8.00\% | 7.62\% | 8.00\% | 8.00\% | 7.01\% |  |
| $\begin{aligned} & \text { 13C } \\ & \text { 13D } \end{aligned}$ | In Year Before Disability Retirement | 8.00\% | 5.24\% | 8.00\% | 8.00\% | 5.04\% |  |
|  | By Year |  |  |  |  |  |  |
|  | * Four-year and eight-year periods ending 6/30/2011 were studied for the Withdrawal and Disability Decrements. |  |  |  |  |  |  |
|  | ** For Salary Increases, average annual percentage increase in salary is shown. For Overtime Pay, average annual overtime pay is expressed as a percentage of salary. |  |  |  |  |  |  |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT <br> RETIREMENT ASSUMPTIONS AND EXPERIENCE <br> FOR THE FOUR-YEAR PERIOD ENDING 6/30/2013




## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT

 ORDINARY DISABILITY ASSUMPTIONS AND EXPERIENCE FOR THE EIGHT-YEAR PERIOD ENDING 6/30/2011Ordinary Disability, Women

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT

 ACCIDENTAL DISABILITY ASSUMPTIONS AND EXPERIENCE FOR THE EIGHT-YEAR PERIOD ENDING 6/30/2011

[^2]
## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

|  | TABLE 1A |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 0 | N/A | 0.1597\% | 0.1800\% | 0 | 0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.2033\% | 0.1964\% | 0 | 0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.2442\% | 0.2140\% | 0 | 0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.2825\% | 0.2329\% | 0 | 0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.3182\% | 0.2531\% | 0 | 0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.3473\% | 0.2744\% | 0 | 0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.3729\% | 0.2968\% | 0 | 0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.3954\% | 0.3206\% | 0 | 0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.4146\% | 0.3455\% | 0 | 0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.4307\% | 0.3720\% | 0 | 0 | 0\% | 0\% |
| 51 | 0 | 1 | 0.000000 | 0.4875\% | 0.4006\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.5460\% | 0.4320\% | 0 | 0 | 0\% | 0\% |
| 53 | 0 | 2 | 0.000000 | 0.6110\% | 0.4669\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 1 | 9 | 0.111111 | 0.6785\% | 0.5058\% | 0.1 | 0.0 | 1638\% | 2197\% |
| 55 | 1 | 171 | 0.005848 | 0.7545\% | 0.5494\% | 1.3 | 0.9 | 78\% | 106\% |
| 56 | 8 | 624 | 0.012821 | 0.8125\% | 0.5983\% | 5.1 | 3.7 | 158\% | 214\% |
| 57 | 8 | 843 | 0.009490 | 0.8712\% | 0.6533\% | 7.3 | 5.5 | 109\% | 145\% |
| 58 | 6 | 1,063 | 0.005644 | 0.9309\% | 0.7148\% | 9.9 | 7.6 | 61\% | 79\% |
| 59 | 13 | 1,290 | 0.010078 | 0.9834\% | 0.7836\% | 12.7 | 10.1 | 102\% | 129\% |
| 60 | 14 | 1,584 | 0.008838 | 1.0360\% | 0.8603\% | 16.4 | 13.6 | 85\% | 103\% |
| 61 | 17 | 1,883 | 0.009028 | 1.1527\% | 0.9456\% | 21.7 | 17.8 | 78\% | 95\% |
| 62 | 25 | 2,254 | 0.011091 | 1.2582\% | 1.0393\% | 28.4 | 23.4 | 88\% | 107\% |
| 63 | 39 | 2,769 | 0.014085 | 1.3720\% | 1.1423\% | 38.0 | 31.6 | 103\% | 123\% |
| 64 | 39 | 3,047 | 0.012799 | 1.4726\% | 1.2554\% | 44.9 | 38.3 | 87\% | 102\% |
| 65 | 51 | 3,206 | 0.015908 | 1.5702\% | 1.3799\% | 50.3 | 44.2 | 101\% | 115\% |
| 66 | 48 | 3,380 | 0.014201 | 1.7139\% | 1.5166\% | 57.9 | 51.3 | 83\% | 94\% |
| 67 | 69 | 3,590 | 0.019220 | 1.8447\% | 1.6669\% | 66.2 | 59.8 | 104\% | 115\% |
| 68 | 65 | 3,663 | 0.017745 | 1.9597\% | 1.8320\% | 71.8 | 67.1 | 91\% | 97\% |
| 69 | 74 | 3,643 | 0.020313 | 2.0894\% | 2.0136\% | 76.1 | 73.4 | 97\% | 101\% |
| 70 | 70 | 3,595 | 0.019471 | 2.2013\% | 2.2131\% | 79.1 | 79.6 | 88\% | 88\% |
| 71 | 70 | 3,500 | 0.020000 | 2.3984\% | 2.4324\% | 83.9 | 85.1 | 83\% | 82\% |
| 72 | 88 | 3,437 | 0.025604 | 2.5999\% | 2.6735\% | 89.4 | 91.9 | 98\% | 96\% |
| 73 | 97 | 3,375 | 0.028741 | 2.8053\% | 2.9384\% | 94.7 | 99.2 | 102\% | 98\% |
| 74 | 103 | 3,190 | 0.032288 | 3.0149\% | 3.2295\% | 96.2 | 103.0 | 107\% | 100\% |
| 75 | 89 | 2,882 | 0.030881 | 3.2551\% | 3.5496\% | 93.8 | 102.3 | 95\% | 87\% |
| 76 | 112 | 2,616 | 0.042813 | 3.7527\% | 3.9013\% | 98.2 | 102.1 | 114\% | 110\% |
| 77 | 116 | 2,445 | 0.047444 | 4.2954\% | 4.2879\% | 105.0 | 104.8 | 110\% | 111\% |
| 78 | 96 | 2,233 | 0.042991 | 4.8575\% | 4.7128\% | 108.5 | 105.2 | 89\% | 91\% |
| 79 | 99 | 2,135 | 0.046370 | 5.4395\% | 5.1798\% | 116.1 | 110.6 | 85\% | 90\% |
| 80 | 115 | 2,002 | 0.057443 | 6.0416\% | 5.6931\% | 121.0 | 114.0 | 95\% | 101\% |
| 81 | 121 | 1,815 | 0.066667 | 6.6973\% | 6.2572\% | 121.6 | 113.6 | 100\% | 107\% |
| 82 | 113 | 1,730 | 0.065318 | 7.3631\% | 6.8772\% | 127.4 | 119.0 | 89\% | 95\% |
| 83 | 127 | 1,604 | 0.079177 | 7.9745\% | 7.5587\% | 127.9 | 121.2 | 99\% | 105\% |
| 84 | 130 | 1,561 | 0.083280 | 8.6555\% | 8.3077\% | 135.1 | 129.7 | 96\% | 100\% |
| 85 | 124 | 1,475 | 0.084068 | 9.2719\% | 9.1310\% | 136.8 | 134.7 | 91\% | 92\% |
| 86 | 137 | 1,351 | 0.101406 | 10.4648\% | 10.0358\% | 141.4 | 135.6 | 97\% | 101\% |
| 87 | 139 | 1,240 | 0.112097 | 11.7953\% | 11.0303\% | 146.3 | 136.8 | 95\% | 102\% |
| 88 | 147 | 1,059 | 0.138810 | 13.1900\% | 12.1233\% | 139.7 | 128.4 | 105\% | 114\% |
| 89 | 120 | 875 | 0.137143 | 14.5331\% | 13.3246\% | 127.2 | 116.6 | 94\% | 103\% |
| 90 | 120 | 713 | 0.168303 | 16.0483\% | 14.6450\% | 114.4 | 104.4 | 105\% | 115\% |
| 91 | 84 | 562 | 0.149466 | 17.8244\% | 16.0962\% | 100.2 | 90.5 | 84\% | 93\% |
| 92 | 83 | 451 | 0.184035 | 19.7255\% | 17.6912\% | 89.0 | 79.8 | 93\% | 104\% |
| 93 | 68 | 350 | 0.194286 | 21.4517\% | 19.4443\% | 75.1 | 68.1 | 91\% | 100\% |
| 94 | 57 | 274 | 0.208029 | 23.1923\% | 21.3710\% | 63.5 | 58.6 | 90\% | 97\% |
| 95 | 55 | 199 | 0.276382 | 25.3168\% | 23.4887\% | 50.4 | 46.7 | 109\% | 118\% |
| 96 | 35 | 126 | 0.277778 | 27.1711\% | 25.8163\% | 34.2 | 32.5 | 102\% | 108\% |
| 97 | 20 | 81 | 0.246914 | 28.9556\% | 28.3745\% | 23.5 | 23.0 | 85\% | 87\% |
| 98 | 21 | 52 | 0.403846 | 30.9964\% | 31.1862\% | 16.1 | 16.2 | 130\% | 129\% |
| 99 | 11 | 37 | 0.297297 | 32.6018\% | 34.2765\% | 12.1 | 12.7 | 91\% | 87\% |
| Subtotal | 3,245 | 79,987 |  |  |  | 3,375.6 | 3,214.2 | 96\% | 101\% |
| 100 or more | 21 | 60 | 0.350000 | 37.1685\% | 45.5092\% | 22.3 | 27.3 | 94\% | 77\% |
| Total | 3,266 | 80,047 |  |  |  | 3,397.9 | 3,241.5 | 96\% | 101\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT MORTALITY EXPERIENCE OF SERVICE RETIREES WOMEN

| Age | TABLE 1B |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 0 | N/A | 0.0783\% | 0.1485\% | 0 | 0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.0868\% | 0.1594\% | 0 | 0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.0975\% | 0.1702\% | 0 | 0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.1105\% | 0.1810\% | 0 | 0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.1251\% | 0.1918\% | 0 | 0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.1417\% | 0.2024\% | 0 | 0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.1603\% | 0.2130\% | 0 | 0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.1817\% | 0.2231\% | 0 | 0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.2048\% | 0.2329\% | 0 | 0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.2307\% | 0.2471\% | 0 | 0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.2622\% | 0.2656\% | 0 | 0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.2990\% | 0.2885\% | 0 | 0 | 0\% | 0\% |
| 53 | 0 | 1 | 0.000000 | 0.3392\% | 0.3158\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 0 | 1 | 0.000000 | 0.3835\% | 0.3474\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 0 | 13 | 0.000000 | 0.4321\% | 0.3835\% | 0.1 | 0.0 | 0\% | 0\% |
| 56 | 0 | 68 | 0.000000 | 0.5051\% | 0.4239\% | 0.3 | 0.3 | 0\% | 0\% |
| 57 | 4 | 98 | 0.040816 | 0.5811\% | 0.4687\% | 0.6 | 0.5 | 702\% | 871\% |
| 58 | 0 | 136 | 0.000000 | 0.6577\% | 0.5178\% | 0.9 | 0.7 | 0\% | 0\% |
| 59 | 0 | 164 | 0.000000 | 0.7386\% | 0.5714\% | 1.2 | 0.9 | 0\% | 0\% |
| 60 | 2 | 199 | 0.010050 | 0.8236\% | 0.6294\% | 1.6 | 1.3 | 122\% | 160\% |
| 61 | 2 | 229 | 0.008734 | 0.9145\% | 0.6918\% | 2.1 | 1.6 | 96\% | 126\% |
| 62 | 2 | 250 | 0.008000 | 0.9912\% | 0.7604\% | 2.5 | 1.9 | 81\% | 105\% |
| 63 | 4 | 310 | 0.012903 | 1.0664\% | 0.8357\% | 3.3 | 2.6 | 121\% | 154\% |
| 64 | 5 | 327 | 0.015291 | 1.1462\% | 0.9186\% | 3.7 | 3.0 | 133\% | 166\% |
| 65 | 2 | 318 | 0.006289 | 1.2310\% | 1.0096\% | 3.9 | 3.2 | 51\% | 62\% |
| 66 | 6 | 329 | 0.018237 | 1.3217\% | 1.1097\% | 4.3 | 3.7 | 138\% | 164\% |
| 67 | 8 | 329 | 0.024316 | 1.4235\% | 1.2197\% | 4.7 | 4.0 | 171\% | 199\% |
| 68 | 4 | 340 | 0.011765 | 1.5303\% | 1.3406\% | 5.2 | 4.6 | 77\% | 88\% |
| 69 | 5 | 337 | 0.014837 | 1.6051\% | 1.4735\% | 5.4 | 5.0 | 92\% | 101\% |
| 70 | 7 | 319 | 0.021944 | 1.6732\% | 1.6195\% | 5.3 | 5.2 | 131\% | 135\% |
| 71 | 6 | 311 | 0.019293 | 1.8431\% | 1.7800\% | 5.7 | 5.5 | 105\% | 108\% |
| 72 | 7 | 315 | 0.022222 | 2.0222\% | 1.9565\% | 6.4 | 6.2 | 110\% | 114\% |
| 73 | 7 | 290 | 0.024138 | 2.1798\% | 2.1504\% | 6.3 | 6.2 | 111\% | 112\% |
| 74 | 6 | 268 | 0.022388 | 2.3496\% | 2.3635\% | 6.3 | 6.3 | 95\% | 95\% |
| 75 | 5 | 243 | 0.020576 | 2.4953\% | 2.5978\% | 6.1 | 6.3 | 82\% | 79\% |
| 76 | 5 | 204 | 0.024510 | 2.8182\% | 2.8553\% | 5.7 | 5.8 | 87\% | 86\% |
| 77 | 11 | 208 | 0.052885 | 3.1667\% | 3.1383\% | 6.6 | 6.5 | 167\% | 169\% |
| 78 | 10 | 189 | 0.052910 | 3.4923\% | 3.4494\% | 6.6 | 6.5 | 152\% | 153\% |
| 79 | 10 | 178 | 0.056180 | 3.8179\% | 3.7913\% | 6.8 | 6.7 | 147\% | 148\% |
| 80 | 9 | 158 | 0.056962 | 4.1435\% | 4.1671\% | 6.5 | 6.6 | 137\% | 137\% |
| 81 | 7 | 154 | 0.045455 | 4.6586\% | 4.5802\% | 7.2 | 7.1 | 98\% | 99\% |
| 82 | 5 | 150 | 0.033333 | 5.1835\% | 5.0341\% | 7.8 | 7.6 | 64\% | 66\% |
| 83 | 14 | 156 | 0.089744 | 5.7181\% | 5.5331\% | 8.9 | 8.6 | 157\% | 162\% |
| 84 | 8 | 158 | 0.050633 | 6.2626\% | 6.0816\% | 9.9 | 9.6 | 81\% | 83\% |
| 85 | 8 | 143 | 0.055944 | 6.8720\% | 6.6844\% | 9.8 | 9.6 | 81\% | 84\% |
| 86 | 12 | 140 | 0.085714 | 7.9002\% | 7.3469\% | 11.1 | 10.3 | 108\% | 117\% |
| 87 | 7 | 125 | 0.056000 | 8.9443\% | 8.0752\% | 11.2 | 10.1 | 63\% | 69\% |
| 88 | 10 | 121 | 0.082645 | 9.9247\% | 8.8756\% | 12.0 | 10.7 | 83\% | 93\% |
| 89 | 10 | 107 | 0.093458 | 10.9930\% | 9.7553\% | 11.8 | 10.4 | 85\% | 96\% |
| 90 | 7 | 93 | 0.075269 | 11.9814\% | 10.7223\% | 11.1 | 10.0 | 63\% | 70\% |
| 91 | 14 | 88 | 0.159091 | 13.6802\% | 11.7851\% | 12.0 | 10.4 | 116\% | 135\% |
| 92 | 7 | 71 | 0.098592 | 15.3234\% | 12.9532\% | 10.9 | 9.2 | 64\% | 76\% |
| 93 | 6 | 56 | 0.107143 | 17.0656\% | 14.2372\% | 9.6 | 8.0 | 63\% | 75\% |
| 94 | 6 | 38 | 0.157895 | 18.5767\% | 15.6484\% | 7.1 | 5.9 | 85\% | 101\% |
| 95 | 1 | 29 | 0.034483 | 20.0298\% | 17.1994\% | 5.8 | 5.0 | 17\% | 20\% |
| 96 | 7 | 21 | 0.333333 | 21.1824\% | 18.9042\% | 4.4 | 4.0 | 157\% | 176\% |
| 97 | 2 | 14 | 0.142857 | 22.3611\% | 20.7780\% | 3.1 | 2.9 | 64\% | 69\% |
| 98 | 4 | 12 | 0.333333 | 23.0718\% | 22.8376\% | 2.8 | 2.7 | 144\% | 146\% |
| 99 | 2 | 7 | 0.285714 | 23.4718\% | 25.1012\% | 1.6 | 1.8 | 122\% | 114\% |
| Subtotal | 264 | 7,815 |  |  |  | 266.4 | 244.9 | 99\% | 108\% |
| 100 or more | 6 | 17 | 0.352941 | 25.4498\% | 33.3297\% | 4.3 | 5.7 | 139\% | 106\% |
| Total | 270 | 7,832 |  |  |  | 270.7 | 250.6 | 100\% | 108\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT MORTALITY EXPERIENCE OF SERVICE RETIREES MEN AND WOMEN

|  | TABLE 1C |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 51 | 0 | 1 | 0.000000 | 0.4875\% | 0.4006\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 53 | 0 | 3 | 0.000000 | 0.5204\% | 0.4165\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 1 | 10 | 0.100000 | 0.6490\% | 0.4900\% | 0.1 | 0.0 | 1541\% | 2041\% |
| 55 | 1 | 184 | 0.005435 | 0.7317\% | 0.5377\% | 1.3 | 1.0 | 74\% | 101\% |
| 56 | 8 | 692 | 0.011561 | 0.7823\% | 0.5812\% | 5.4 | 4.0 | 148\% | 199\% |
| 57 | 12 | 941 | 0.012752 | 0.8410\% | 0.6341\% | 7.9 | 6.0 | 152\% | 201\% |
| 58 | 6 | 1,199 | 0.005004 | 0.8999\% | 0.6925\% | 10.8 | 8.3 | 56\% | 72\% |
| 59 | 13 | 1,454 | 0.008941 | 0.9558\% | 0.7597\% | 13.9 | 11.0 | 94\% | 118\% |
| 60 | 16 | 1,783 | 0.008974 | 1.0123\% | 0.8345\% | 18.0 | 14.9 | 89\% | 108\% |
| 61 | 19 | 2,112 | 0.008996 | 1.1269\% | 0.9181\% | 23.8 | 19.4 | 80\% | 98\% |
| 62 | 27 | 2,504 | 0.010783 | 1.2315\% | 1.0114\% | 30.8 | 25.3 | 88\% | 107\% |
| 63 | 43 | 3,079 | 0.013966 | 1.3412\% | 1.1114\% | 41.3 | 34.2 | 104\% | 126\% |
| 64 | 44 | 3,374 | 0.013041 | 1.4410\% | 1.2228\% | 48.6 | 41.3 | 91\% | 107\% |
| 65 | 53 | 3,524 | 0.015040 | 1.5396\% | 1.3464\% | 54.3 | 47.4 | 98\% | 112\% |
| 66 | 54 | 3,709 | 0.014559 | 1.6791\% | 1.4805\% | 62.3 | 54.9 | 87\% | 98\% |
| 67 | 77 | 3,919 | 0.019648 | 1.8093\% | 1.6293\% | 70.9 | 63.9 | 109\% | 121\% |
| 68 | 69 | 4,003 | 0.017237 | 1.9232\% | 1.7903\% | 77.0 | 71.7 | 90\% | 96\% |
| 69 | 79 | 3,980 | 0.019849 | 2.0484\% | 1.9678\% | 81.5 | 78.3 | 97\% | 101\% |
| 70 | 77 | 3,914 | 0.019673 | 2.1583\% | 2.1647\% | 84.5 | 84.7 | 91\% | 91\% |
| 71 | 76 | 3,811 | 0.019942 | 2.3531\% | 2.3792\% | 89.7 | 90.7 | 85\% | 84\% |
| 72 | 95 | 3,752 | 0.025320 | 2.5514\% | 2.6133\% | 95.7 | 98.0 | 99\% | 97\% |
| 73 | 104 | 3,665 | 0.028377 | 2.7558\% | 2.8760\% | 101.0 | 105.4 | 103\% | 99\% |
| 74 | 109 | 3,458 | 0.031521 | 2.9633\% | 3.1624\% | 102.5 | 109.4 | 106\% | 100\% |
| 75 | 94 | 3,125 | 0.030080 | 3.1960\% | 3.4756\% | 99.9 | 108.6 | 94\% | 87\% |
| 76 | 117 | 2,820 | 0.041489 | 3.6851\% | 3.8256\% | 103.9 | 107.9 | 113\% | 108\% |
| 77 | 127 | 2,653 | 0.047870 | 4.2069\% | 4.1978\% | 111.6 | 111.4 | 114\% | 114\% |
| 78 | 106 | 2,422 | 0.043765 | 4.7510\% | 4.6142\% | 115.1 | 111.8 | 92\% | 95\% |
| 79 | 109 | 2,313 | 0.047125 | 5.3147\% | 5.0729\% | 122.9 | 117.3 | 89\% | 93\% |
| 80 | 124 | 2,160 | 0.057407 | 5.9028\% | 5.5814\% | 127.5 | 120.6 | 97\% | 103\% |
| 81 | 128 | 1,969 | 0.065008 | 6.5378\% | 6.1260\% | 128.7 | 120.6 | 99\% | 106\% |
| 82 | 118 | 1,880 | 0.062766 | 7.1892\% | 6.7302\% | 135.2 | 126.5 | 87\% | 93\% |
| 83 | 141 | 1,760 | 0.080114 | 7.7745\% | 7.3792\% | 136.8 | 129.9 | 103\% | 109\% |
| 84 | 138 | 1,719 | 0.080279 | 8.4356\% | 8.1031\% | 145.0 | 139.3 | 95\% | 99\% |
| 85 | 132 | 1,618 | 0.081582 | 9.0598\% | 8.9147\% | 146.6 | 144.2 | 90\% | 92\% |
| 86 | 149 | 1,491 | 0.099933 | 10.2240\% | 9.7833\% | 152.4 | 145.9 | 98\% | 102\% |
| 87 | 146 | 1,365 | 0.106960 | 11.5342\% | 10.7596\% | 157.4 | 146.9 | 93\% | 99\% |
| 88 | 157 | 1,180 | 0.133051 | 12.8552\% | 11.7903\% | 151.7 | 139.1 | 103\% | 113\% |
| 89 | 130 | 982 | 0.132383 | 14.1474\% | 12.9357\% | 138.9 | 127.0 | 94\% | 102\% |
| 90 | 127 | 806 | 0.157568 | 15.5790\% | 14.1924\% | 125.6 | 114.4 | 101\% | 111\% |
| 91 | 98 | 650 | 0.150769 | 17.2633\% | 15.5125\% | 112.2 | 100.8 | 87\% | 97\% |
| 92 | 90 | 522 | 0.172414 | 19.1267\% | 17.0468\% | 99.8 | 89.0 | 90\% | 101\% |
| 93 | 74 | 406 | 0.182266 | 20.8467\% | 18.7260\% | 84.6 | 76.0 | 87\% | 97\% |
| 94 | 63 | 312 | 0.201923 | 22.6301\% | 20.6740\% | 70.6 | 64.5 | 89\% | 98\% |
| 95 | 56 | 228 | 0.245614 | 24.6443\% | 22.6888\% | 56.2 | 51.7 | 100\% | 108\% |
| 96 | 42 | 147 | 0.285714 | 26.3156\% | 24.8289\% | 38.7 | 36.5 | 109\% | 115\% |
| 97 | 22 | 95 | 0.231579 | 27.9838\% | 27.2550\% | 26.6 | 25.9 | 83\% | 85\% |
| 98 | 25 | 64 | 0.390625 | 29.5105\% | 29.6208\% | 18.9 | 19.0 | 132\% | 132\% |
| 99 | 13 | 44 | 0.295455 | 31.1493\% | 32.8168\% | 13.7 | 14.4 | 95\% | 90\% |
| Subtotal | 3,509 | 87,802 |  |  |  | 3,642.0 | 3,459.1 | 96\% | 101\% |
| 100 or more | 27 | 77 | 0.350649 | 34.5813\% | 42.8202\% | 26.6 | 33.0 | 101\% | 82\% |
| Total | 3,536 | 87,879 |  |  |  | 3,668.6 | 3,492.1 | 96\% | 101\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

|  | TABLE 1A GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $\text { (2) } /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 45-49 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 50-54 | 1 | 12 | 0.083333 | 0.6513\% | 0.4906\% | 0.1 | 0.1 | 1279\% | 1699\% |
| 55-59 | 36 | 3,991 | 0.009020 | 0.9092\% | 0.6987\% | 36.3 | 27.9 | 99\% | 129\% |
| 60-64 | 134 | 11,537 | 0.011615 | 1.2944\% | 1.0812\% | 149.3 | 124.7 | 90\% | 107\% |
| 65-69 | 307 | 17,482 | 0.017561 | 1.8442\% | 1.6920\% | 322.4 | 295.8 | 95\% | 104\% |
| 70-74 | 428 | 17,097 | 0.025034 | 2.5928\% | 2.6834\% | 443.3 | 458.8 | 97\% | 93\% |
| 75-79 | 512 | 12,311 | 0.041589 | 4.2369\% | 4.2646\% | 521.6 | 525.0 | 98\% | 98\% |
| 80-84 | 606 | 8,712 | 0.069559 | 7.2649\% | 6.8577\% | 632.9 | 597.4 | 96\% | 101\% |
| 85-89 | 667 | 6,000 | 0.111167 | 11.5208\% | 10.8669\% | 691.2 | 652.0 | 96\% | 102\% |
| 90-94 | 412 | 2,350 | 0.175319 | 18.8165\% | 17.0757\% | 442.2 | 401.3 | 93\% | 103\% |
| 95-99 | 142 | 495 | 0.286869 | 27.5254\% | 26.4957\% | 136.3 | 131.2 | 104\% | 108\% |
| 100+ | 21 | 60 | 0.350000 | 37.1685\% | 45.5092\% | 22.3 | 27.3 | 94\% | 77\% |
| Total | 3,266 | 80,047 |  |  |  | 3,397.9 | 3,241.5 | 96\% | 101\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT MORTALITY EXPERIENCE OF SERVICE RETIREES WOMEN

|  | TABLE 1B GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 45-49 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 50-54 | 0 | 2 | 0.000000 | 0.3614\% | 0.3316\% | 0.0 | 0.0 | 0\% | 0\% |
| 55-59 | 4 | 479 | 0.008351 | 0.6419\% | 0.5091\% | 3.1 | 2.4 | 130\% | 164\% |
| 60-64 | 15 | 1,315 | 0.011407 | 1.0088\% | 0.7857\% | 13.3 | 10.3 | 113\% | 145\% |
| 65-69 | 25 | 1,653 | 0.015124 | 1.4252\% | 1.2340\% | 23.6 | 20.4 | 106\% | 123\% |
| 70-74 | 33 | 1,503 | 0.021956 | 1.9999\% | 1.9584\% | 30.1 | 29.4 | 110\% | 112\% |
| 75-79 | 41 | 1,022 | 0.040117 | 3.111\% | 3.1246\% | 31.8 | 31.9 | 129\% | 128\% |
| 80-84 | 43 | 776 | 0.055412 | 5.1948\% | 5.0811\% | 40.3 | 39.4 | 107\% | 109\% |
| 85-89 | 47 | 636 | 0.073899 | 8.7797\% | 8.0371\% | 55.8 | 51.1 | 84\% | 92\% |
| 90-94 | 40 | 346 | 0.115607 | 14.6465\% | 12.5603\% | 50.7 | 43.5 | 79\% | 92\% |
| 95-99 | 16 | 83 | 0.192771 | 21.4447\% | 19.7160\% | 17.8 | 16.4 | 90\% | 98\% |
| 100+ | 6 | 17 | 0.352941 | 25.4498\% | 33.3297\% | 4.3 | 5.7 | 139\% | 106\% |
| Total | 270 | 7,832 |  |  |  | 270.7 | 250.6 | 100\% | 108\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT MORTALITY EXPERIENCE OF SERVICE RETIREES <br> MEN AND WOMEN

| Age | TABLE 1C GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 45-49 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 50-54 | 1 | 14 | 0.071429 | 0.6099\% | 0.4678\% | 0.1 | 0.1 | 1171\% | 1527\% |
| 55-59 | 40 | 4,470 | 0.008949 | 0.8806\% | 0.6784\% | 39.4 | 30.3 | 102\% | 132\% |
| 60-64 | 149 | 12,852 | 0.011594 | 1.2652\% | 1.0510\% | 162.6 | 135.1 | 92\% | 110\% |
| 65-69 | 332 | 19,135 | 0.017350 | 1.8080\% | 1.6525\% | 346.0 | 316.2 | 96\% | 105\% |
| 70-74 | 461 | 18,600 | 0.024785 | 2.5449\% | 2.6248\% | 473.4 | 488.2 | 97\% | 94\% |
| 75-79 | 553 | 13,333 | 0.041476 | 4.1506\% | 4.1773\% | 553.4 | 557.0 | 100\% | 99\% |
| 80-84 | 649 | 9,488 | 0.068402 | 7.0955\% | 6.7124\% | 673.2 | 636.9 | 96\% | 102\% |
| 85-89 | 714 | 6,636 | 0.107595 | 11.2581\% | 10.5957\% | 747.1 | 703.1 | 96\% | 102\% |
| 90-94 | 452 | 2,696 | 0.167656 | 18.2813\% | 16.4962\% | 492.9 | 444.7 | 92\% | 102\% |
| 95-99 | 158 | 578 | 0.273356 | 26.6522\% | 25.5221\% | 154.0 | 147.5 | 103\% | 107\% |
| 100+ | 27 | 77 | 0.350649 | 34.5813\% | 42.8202\% | 26.6 | 33.0 | 101\% | 82\% |
| Total | 3,536 | 87,879 |  |  |  | 3,668.6 | 3,492.1 | 96\% | 101\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

| Age | TABLE 1A |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 0 | N/A | 0.1641\% | 0.1954\% | 0 | 0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.2095\% | 0.2139\% | 0 | 0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.2524\% | 0.2335\% | 0 | 0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.2930\% | 0.2539\% | 0 | 0 | 0\% | 0\% |
| 45 | 0 | 1 | 0.000000 | 0.3309\% | 0.2753\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 1 | 0.000000 | 0.3623\% | 0.2973\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 1 | 0.000000 | 0.3902\% | 0.3200\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.4150\% | 0.3435\% | 0 | 0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.4365\% | 0.3677\% | 0 | 0 | 0\% | 0\% |
| 50 | 0 | 7 | 0.000000 | 0.4548\% | 0.3928\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 57 | 0.000000 | 0.5164\% | 0.4194\% | 0.3 | 0.2 | 0\% | 0\% |
| 52 | 0 | 135 | 0.000000 | 0.5801\% | 0.4482\% | 0.8 | 0.6 | 0\% | 0\% |
| 53 | 2 | 273 | 0.007326 | 0.6492\% | 0.4800\% | 1.8 | 1.3 | 113\% | 153\% |
| 54 | 3 | 499 | 0.006012 | 0.7209\% | 0.5159\% | 3.6 | 2.6 | 83\% | 117\% |
| 55 | 9 | 1,096 | 0.008212 | 0.7992\% | 0.5571\% | 8.8 | 6.1 | 103\% | 147\% |
| 56 | 17 | 2,232 | 0.007616 | 0.8580\% | 0.6045\% | 19.2 | 13.5 | 89\% | 126\% |
| 57 | 21 | 2,908 | 0.007221 | 0.9171\% | 0.6597\% | 26.7 | 19.2 | 79\% | 109\% |
| 58 | 29 | 3,567 | 0.008130 | 0.9770\% | 0.7235\% | 34.8 | 25.8 | 83\% | 112\% |
| 59 | 45 | 4,143 | 0.010862 | 1.0322\% | 0.7969\% | 42.8 | 33.0 | 105\% | 136\% |
| 60 | 56 | 4,832 | 0.011589 | 1.0873\% | 0.8809\% | 52.5 | 42.6 | 107\% | 132\% |
| 61 | 69 | 5,504 | 0.012536 | 1.2062\% | 0.9757\% | 66.4 | 53.7 | 104\% | 128\% |
| 62 | 84 | 6,332 | 0.013266 | 1.3166\% | 1.0811\% | 83.4 | 68.5 | 101\% | 123\% |
| 63 | 108 | 7,372 | 0.014650 | 1.4312\% | 1.1973\% | 105.5 | 88.3 | 102\% | 122\% |
| 64 | 112 | 8,004 | 0.013993 | 1.5362\% | 1.3248\% | 123.0 | 106.0 | 91\% | 106\% |
| 65 | 150 | 8,382 | 0.017895 | 1.6380\% | 1.4644\% | 137.3 | 122.7 | 109\% | 122\% |
| 66 | 141 | 8,694 | 0.016218 | 1.7825\% | 1.6171\% | 155.0 | 140.6 | 91\% | 100\% |
| 67 | 178 | 8,888 | 0.020027 | 1.9185\% | 1.7845\% | 170.5 | 158.6 | 104\% | 112\% |
| 68 | 182 | 8,860 | 0.020542 | 2.0444\% | 1.9673\% | 181.1 | 174.3 | 100\% | 104\% |
| 69 | 175 | 8,700 | 0.020115 | 2.1797\% | 2.1683\% | 189.6 | 188.6 | 92\% | 93\% |
| 70 | 208 | 8,421 | 0.024700 | 2.3034\% | 2.3885\% | 194.0 | 201.1 | 107\% | 103\% |
| 71 | 190 | 8,092 | 0.023480 | 2.5097\% | 2.6303\% | 203.1 | 212.8 | 94\% | 89\% |
| 72 | 207 | 7,734 | 0.026765 | 2.7205\% | 2.8957\% | 210.4 | 224.0 | 98\% | 92\% |
| 73 | 238 | 7,476 | 0.031835 | 2.9354\% | 3.1869\% | 219.5 | 238.3 | 108\% | 100\% |
| 74 | 246 | 7,025 | 0.035018 | 3.1547\% | 3.5059\% | 221.6 | 246.3 | 111\% | 100\% |
| 75 | 240 | 6,580 | 0.036474 | 3.3958\% | 3.8549\% | 223.4 | 253.7 | 107\% | 95\% |
| 76 | 261 | 6,177 | 0.042254 | 3.9148\% | 4.2378\% | 241.8 | 261.8 | 108\% | 100\% |
| 77 | 256 | 5,842 | 0.043821 | 4.4674\% | 4.6563\% | 261.0 | 272.0 | 98\% | 94\% |
| 78 | 261 | 5,603 | 0.046582 | 5.0367\% | 5.1135\% | 282.2 | 286.5 | 92\% | 91\% |
| 79 | 273 | 5,394 | 0.050612 | 5.6231\% | 5.6144\% | 303.3 | 302.8 | 90\% | 90\% |
| 80 | 293 | 5,130 | 0.057115 | 6.2265\% | 6.1638\% | 319.4 | 316.2 | 92\% | 93\% |
| 81 | 344 | 4,829 | 0.071236 | 6.8815\% | 6.7655\% | 332.3 | 326.7 | 104\% | 105\% |
| 82 | 312 | 4,568 | 0.068301 | 7.5426\% | 7.4253\% | 344.5 | 339.2 | 91\% | 92\% |
| 83 | 310 | 4,251 | 0.072924 | 8.1690\% | 8.1494\% | 347.3 | 346.4 | 89\% | 89\% |
| 84 | 329 | 3,909 | 0.084165 | 8.8398\% | 8.9441\% | 345.5 | 349.6 | 95\% | 94\% |
| 85 | 319 | 3,554 | 0.089758 | 9.4694\% | 9.8162\% | 336.5 | 348.9 | 95\% | 91\% |
| 86 | 340 | 3,187 | 0.106683 | 10.6877\% | 10.7724\% | 340.6 | 343.3 | 100\% | 99\% |
| 87 | 336 | 2,795 | 0.120215 | 12.0102\% | 11.8205\% | 335.7 | 330.4 | 100\% | 102\% |
| 88 | 331 | 2,372 | 0.139545 | 13.3898\% | 12.9666\% | 317.6 | 307.6 | 104\% | 108\% |
| 89 | 288 | 1,988 | 0.144869 | 14.7533\% | 14.2195\% | 293.3 | 282.7 | 98\% | 102\% |
| 90 | 259 | 1,612 | 0.160670 | 16.2424\% | 15.5886\% | 261.8 | 251.3 | 99\% | 103\% |
| 91 | 213 | 1,277 | 0.166797 | 18.0401\% | 17.0845\% | 230.4 | 218.2 | 92\% | 98\% |
| 92 | 196 | 985 | 0.198985 | 19.9041\% | 18.7143\% | 196.1 | 184.3 | 100\% | 106\% |
| 93 | 157 | 750 | 0.209333 | 21.6460\% | 20.4852\% | 162.3 | 153.6 | 97\% | 102\% |
| 94 | 130 | 575 | 0.226087 | 23.4023\% | 22.4306\% | 134.6 | 129.0 | 97\% | 101\% |
| 95 | 114 | 418 | 0.272727 | 25.4693\% | 24.5733\% | 106.5 | 102.7 | 107\% | 111\% |
| 96 | 73 | 283 | 0.257951 | 27.3348\% | 26.9426\% | 77.4 | 76.2 | 94\% | 96\% |
| 97 | 54 | 195 | 0.276923 | 29.1300\% | 29.5404\% | 56.8 | 57.6 | 95\% | 94\% |
| 98 | 50 | 133 | 0.375940 | 31.0896\% | 32.3888\% | 41.3 | 43.1 | 121\% | 116\% |
| 99 | 25 | 82 | 0.304878 | 32.6998\% | 35.5155\% | 26.8 | 29.1 | 93\% | 86\% |
| Subtotal | 8,234 | 201,725 |  |  |  | 8,370.1 | 8,281.7 | 98\% | 99\% |
| 100 or more | 43 | 124 | 0.346774 | 37.1685\% | 47.0399\% | 46.1 | 58.3 | 93\% | 74\% |
| Total | 8,277 | 201,849 |  |  |  | 8,416.2 | 8,340.0 | 98\% | 99\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT MORTALITY EXPERIENCE OF SERVICE RETIREES WOMEN

|  | TABLE 1B |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate $(\mathbf{2}) /(\mathbf{3})$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | Proposed $(3) \times(6)$ | Expected (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 0 | N/A | 0.0819\% | 0.1596\% | 0 | 0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.0908\% | 0.1706\% | 0 | 0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.1020\% | 0.1812\% | 0 | 0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.1156\% | 0.1914\% | 0 | 0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.1313\% | 0.2012\% | 0 | 0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.1492\% | 0.2105\% | 0 | 0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.1693\% | 0.2194\% | 0 | 0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.1919\% | 0.2277\% | 0 | 0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.2162\% | 0.2358\% | 0 | 0 | 0\% | 0\% |
| 50 | 0 | 1 | 0.000000 | 0.2429\% | 0.2488\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 4 | 0.000000 | 0.2752\% | 0.2666\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 10 | 0.000000 | 0.3119\% | 0.2895\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 1 | 17 | 0.058824 | 0.3517\% | 0.3177\% | 0.1 | 0.1 | 1673\% | 1851\% |
| 54 | 0 | 32 | 0.000000 | 0.3952\% | 0.3513\% | 0.1 | 0.1 | 0\% | 0\% |
| 55 | 1 | 93 | 0.010753 | 0.4427\% | 0.3906\% | 0.4 | 0.4 | 243\% | 275\% |
| 56 | 0 | 227 | 0.000000 | 0.5143\% | 0.4353\% | 1.2 | 1.0 | 0\% | 0\% |
| 57 | 5 | 293 | 0.017065 | 0.5899\% | 0.4857\% | 1.7 | 1.4 | 289\% | 351\% |
| 58 | 1 | 356 | 0.002809 | 0.6677\% | 0.5414\% | 2.4 | 1.9 | 42\% | 52\% |
| 59 | 1 | 387 | 0.002584 | 0.7498\% | 0.6025\% | 2.9 | 2.3 | 34\% | 43\% |
| 60 | 5 | 458 | 0.010917 | 0.8360\% | 0.6685\% | 3.8 | 3.1 | 131\% | 163\% |
| 61 | 3 | 497 | 0.006036 | 0.9283\% | 0.7392\% | 4.6 | 3.7 | 65\% | 82\% |
| 62 | 3 | 555 | 0.005405 | 1.0063\% | 0.8160\% | 5.6 | 4.5 | 54\% | 66\% |
| 63 | 12 | 699 | 0.017167 | 1.0825\% | 0.8998\% | 7.6 | 6.3 | 159\% | 191\% |
| 64 | 14 | 750 | 0.018667 | 1.1636\% | 0.9910\% | 8.7 | 7.4 | 160\% | 188\% |
| 65 | 9 | 758 | 0.011873 | 1.2496\% | 1.0901\% | 9.5 | 8.3 | 95\% | 109\% |
| 66 | 15 | 792 | 0.018939 | 1.3417\% | 1.1984\% | 10.6 | 9.5 | 141\% | 158\% |
| 67 | 15 | 780 | 0.019231 | 1.4451\% | 1.3166\% | 11.3 | 10.3 | 133\% | 146\% |
| 68 | 10 | 771 | 0.012970 | 1.5535\% | 1.4461\% | 12.0 | 11.1 | 83\% | 90\% |
| 69 | 8 | 746 | 0.010724 | 1.6294\% | 1.5881\% | 12.2 | 11.8 | 66\% | 68\% |
| 70 | 13 | 715 | 0.018182 | 1.6985\% | 1.7437\% | 12.1 | 12.5 | 107\% | 104\% |
| 71 | 13 | 688 | 0.018895 | 1.8767\% | 1.9146\% | 12.9 | 13.2 | 101\% | 99\% |
| 72 | 12 | 652 | 0.018405 | 2.0590\% | 2.1020\% | 13.4 | 13.7 | 89\% | 88\% |
| 73 | 13 | 618 | 0.021036 | 2.2263\% | 2.3080\% | 13.8 | 14.3 | 94\% | 91\% |
| 74 | 17 | 579 | 0.029361 | 2.3996\% | 2.5337\% | 13.9 | 14.7 | 122\% | 116\% |
| 75 | 17 | 547 | 0.031079 | 2.5562\% | 2.7819\% | 14.0 | 15.2 | 122\% | 112\% |
| 76 | 12 | 499 | 0.024048 | 2.8870\% | 3.0552\% | 14.4 | 15.2 | 83\% | 79\% |
| 77 | 22 | 495 | 0.044444 | 3.2341\% | 3.3563\% | 16.0 | 16.6 | 137\% | 132\% |
| 78 | 18 | 472 | 0.038136 | 3.5667\% | 3.6878\% | 16.8 | 17.4 | 107\% | 103\% |
| 79 | 21 | 457 | 0.045952 | 3.8992\% | 4.0546\% | 17.8 | 18.5 | 118\% | 113\% |
| 80 | 21 | 443 | 0.047404 | 4.2318\% | 4.4584\% | 18.7 | 19.8 | 112\% | 106\% |
| 81 | 21 | 420 | 0.050000 | 4.7578\% | 4.9043\% | 20.0 | 20.6 | 105\% | 102\% |
| 82 | 17 | 409 | 0.041565 | 5.2939\% | 5.3948\% | 21.7 | 22.1 | 79\% | 77\% |
| 83 | 25 | 395 | 0.063291 | 5.8399\% | 5.9362\% | 23.1 | 23.4 | 108\% | 107\% |
| 84 | 22 | 376 | 0.058511 | 6.3959\% | 6.5306\% | 24.0 | 24.6 | 91\% | 90\% |
| 85 | 20 | 347 | 0.057637 | 6.9972\% | 7.1838\% | 24.3 | 24.9 | 82\% | 80\% |
| 86 | 28 | 327 | 0.085627 | 8.0199\% | 7.8991\% | 26.2 | 25.8 | 107\% | 108\% |
| 87 | 17 | 302 | 0.056291 | 9.0525\% | 8.6794\% | 27.3 | 26.2 | 62\% | 65\% |
| 88 | 25 | 278 | 0.089928 | 10.0447\% | 9.5319\% | 27.9 | 26.5 | 90\% | 94\% |
| 89 | 26 | 249 | 0.104418 | 11.0925\% | 10.4649\% | 27.6 | 26.1 | 94\% | 100\% |
| 90 | 33 | 211 | 0.156398 | 12.0898\% | 11.4834\% | 25.5 | 24.2 | 129\% | 136\% |
| 91 | 26 | 174 | 0.149425 | 13.8041\% | 12.5946\% | 24.0 | 21.9 | 108\% | 119\% |
| 92 | 22 | 140 | 0.157143 | 15.4621\% | 13.8048\% | 21.6 | 19.3 | 102\% | 114\% |
| 93 | 14 | 111 | 0.126126 | 17.1684\% | 15.1237\% | 19.1 | 16.8 | 73\% | 83\% |
| 94 | 16 | 92 | 0.173913 | 18.6886\% | 16.5652\% | 17.2 | 15.2 | 93\% | 105\% |
| 95 | 8 | 73 | 0.109589 | 20.1504\% | 18.1442\% | 14.7 | 13.2 | 54\% | 60\% |
| 96 | 14 | 53 | 0.264151 | 21.3100\% | 19.8879\% | 11.3 | 10.5 | 124\% | 133\% |
| 97 | 9 | 36 | 0.250000 | 22.4283\% | 21.7949\% | 8.1 | 7.8 | 111\% | 115\% |
| 98 | 7 | 27 | 0.259259 | 23.1412\% | 23.8896\% | 6.2 | 6.5 | 112\% | 109\% |
| 99 | 5 | 17 | 0.294118 | 23.5424\% | 26.1831\% | 4.0 | 4.5 | 125\% | 112\% |
| Subtotal | 637 | 18,428 |  |  |  | 632.5 | 614.5 | 101\% | 104\% |
| 100 or more | 7 | 23 | 0.304348 | 25.4498\% | 34.6676\% | 5.9 | 8.0 | 120\% | 88\% |
| Total | 644 | 18,451 |  |  |  | 638.3 | 622.5 | 101\% | 103\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT MORTALITY EXPERIENCE OF SERVICE RETIREES MEN AND WOMEN

|  | TABLE 1C |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013Expected Deaths |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 45 | 0 | 1 | 0.000000 | 0.3309\% | 0.2753\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 1 | 0.000000 | 0.3623\% | 0.2973\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 1 | 0.000000 | 0.3902\% | 0.3200\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 50 | 0 | 8 | 0.000000 | 0.4283\% | 0.3748\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 61 | 0.000000 | 0.5006\% | 0.4094\% | 0.3 | 0.2 | 0\% | 0\% |
| 52 | 0 | 145 | 0.000000 | 0.5616\% | 0.4373\% | 0.8 | 0.6 | 0\% | 0\% |
| 53 | 3 | 290 | 0.010345 | 0.6318\% | 0.4705\% | 1.8 | 1.4 | 164\% | 220\% |
| 54 | 3 | 531 | 0.005650 | 0.7013\% | 0.5060\% | 3.7 | 2.7 | 81\% | 112\% |
| 55 | 10 | 1,189 | 0.008410 | 0.7713\% | 0.5440\% | 9.2 | 6.5 | 109\% | 155\% |
| 56 | 17 | 2,459 | 0.006913 | 0.8263\% | 0.5889\% | 20.3 | 14.5 | 84\% | 117\% |
| 57 | 26 | 3,201 | 0.008122 | 0.8872\% | 0.6438\% | 28.4 | 20.6 | 92\% | 126\% |
| 58 | 30 | 3,923 | 0.007647 | 0.9489\% | 0.7070\% | 37.2 | 27.7 | 81\% | 108\% |
| 59 | 46 | 4,530 | 0.010155 | 1.0081\% | 0.7803\% | 45.7 | 35.3 | 101\% | 130\% |
| 60 | 61 | 5,290 | 0.011531 | 1.0655\% | 0.8625\% | 56.4 | 45.6 | 108\% | 134\% |
| 61 | 72 | 6,001 | 0.011998 | 1.1832\% | 0.9561\% | 71.0 | 57.4 | 101\% | 125\% |
| 62 | 87 | 6,887 | 0.012632 | 1.2916\% | 1.0597\% | 89.0 | 73.0 | 98\% | 119\% |
| 63 | 120 | 8,071 | 0.014868 | 1.4010\% | 1.1715\% | 113.1 | 94.6 | 106\% | 127\% |
| 64 | 126 | 8,754 | 0.014393 | 1.5043\% | 1.2962\% | 131.7 | 113.5 | 96\% | 111\% |
| 65 | 159 | 9,140 | 0.017396 | 1.6058\% | 1.4334\% | 146.8 | 131.0 | 108\% | 121\% |
| 66 | 156 | 9,486 | 0.016445 | 1.7457\% | 1.5822\% | 165.6 | 150.1 | 94\% | 104\% |
| 67 | 193 | 9,668 | 0.019963 | 1.8803\% | 1.7467\% | 181.8 | 168.9 | 106\% | 114\% |
| 68 | 192 | 9,631 | 0.019936 | 2.0051\% | 1.9256\% | 193.1 | 185.5 | 99\% | 104\% |
| 69 | 183 | 9,446 | 0.019373 | 2.1362\% | 2.1224\% | 201.8 | 200.5 | 91\% | 91\% |
| 70 | 221 | 9,136 | 0.024190 | 2.2561\% | 2.3380\% | 206.1 | 213.6 | 107\% | 103\% |
| 71 | 203 | 8,780 | 0.023121 | 2.4601\% | 2.5742\% | 216.0 | 226.0 | 94\% | 90\% |
| 72 | 219 | 8,386 | 0.026115 | 2.6691\% | 2.8340\% | 223.8 | 237.7 | 98\% | 92\% |
| 73 | 251 | 8,094 | 0.031011 | 2.8813\% | 3.1198\% | 233.2 | 252.5 | 108\% | 99\% |
| 74 | 263 | 7,604 | 0.034587 | 3.0972\% | 3.4319\% | 235.5 | 261.0 | 112\% | 101\% |
| 75 | 257 | 7,127 | 0.036060 | 3.3314\% | 3.7726\% | 237.4 | 268.9 | 108\% | 96\% |
| 76 | 273 | 6,676 | 0.040893 | 3.8380\% | 4.1494\% | 256.2 | 277.0 | 107\% | 99\% |
| 77 | 278 | 6,337 | 0.043869 | 4.3711\% | 4.5547\% | 277.0 | 288.6 | 100\% | 96\% |
| 78 | 279 | 6,075 | 0.045926 | 4.9225\% | 5.0027\% | 299.0 | 303.9 | 93\% | 92\% |
| 79 | 294 | 5,851 | 0.050248 | 5.4885\% | 5.4926\% | 321.1 | 321.4 | 92\% | 91\% |
| 80 | 314 | 5,573 | 0.056343 | 6.0679\% | 6.0282\% | 338.2 | 336.0 | 93\% | 93\% |
| 81 | 365 | 5,249 | 0.069537 | 6.7116\% | 6.6166\% | 352.3 | 347.3 | 104\% | 105\% |
| 82 | 329 | 4,977 | 0.066104 | 7.3578\% | 7.2584\% | 366.2 | 361.3 | 90\% | 91\% |
| 83 | 335 | 4,646 | 0.072105 | 7.9710\% | 7.9612\% | 370.3 | 369.9 | 90\% | 91\% |
| 84 | 351 | 4,285 | 0.081914 | 8.6254\% | 8.7323\% | 369.6 | 374.2 | 95\% | 94\% |
| 85 | 339 | 3,901 | 0.086901 | 9.2495\% | 9.5821\% | 360.8 | 373.8 | 94\% | 91\% |
| 86 | 368 | 3,514 | 0.104724 | 10.4394\% | 10.5050\% | 366.8 | 369.1 | 100\% | 100\% |
| 87 | 353 | 3,097 | 0.113981 | 11.7218\% | 11.5142\% | 363.0 | 356.6 | 97\% | 99\% |
| 88 | 356 | 2,650 | 0.134340 | 13.0389\% | 12.6063\% | 345.5 | 334.1 | 103\% | 107\% |
| 89 | 314 | 2,237 | 0.140367 | 14.3458\% | 13.8015\% | 320.9 | 308.7 | 98\% | 102\% |
| 90 | 292 | 1,823 | 0.160176 | 15.7618\% | 15.1135\% | 287.3 | 275.5 | 102\% | 106\% |
| 91 | 239 | 1,451 | 0.164714 | 17.5321\% | 16.5461\% | 254.4 | 240.1 | 94\% | 100\% |
| 92 | 218 | 1,125 | 0.193778 | 19.3513\% | 18.1034\% | 217.7 | 203.7 | 100\% | 107\% |
| 93 | 171 | 861 | 0.198606 | 21.0687\% | 19.7940\% | 181.4 | 170.4 | 94\% | 100\% |
| 94 | 146 | 667 | 0.218891 | 22.7521\% | 21.6215\% | 151.8 | 144.2 | 96\% | 101\% |
| 95 | 122 | 491 | 0.248473 | 24.6785\% | 23.6174\% | 121.2 | 116.0 | 101\% | 105\% |
| 96 | 87 | 336 | 0.258929 | 26.3845\% | 25.8298\% | 88.7 | 86.8 | 98\% | 100\% |
| 97 | 63 | 231 | 0.272727 | 28.0856\% | 28.3333\% | 64.9 | 65.5 | 97\% | 96\% |
| 98 | 57 | 160 | 0.356250 | 29.7483\% | 30.9546\% | 47.6 | 49.5 | 120\% | 115\% |
| 99 | 30 | 99 | 0.303030 | 31.1273\% | 33.9130\% | 30.8 | 33.6 | 97\% | 89\% |
| Subtotal | 8,871 | 220,153 |  |  |  | 9,002.5 | 8,896.2 | 99\% | 100\% |
| 100 or more | 50 | 147 | 0.340136 | 35.3350\% | 45.1041\% | 51.9 | 66.3 | 96\% | 75\% |
| Total | 8,921 | 220,300 |  |  |  | 9,054.5 | 8,962.5 | 99\% | 100\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

| Age | TABLE 1A GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 45-49 | 0 | 3 | 0.000000 | 0.3611\% | 0.2975\% | 0.0 | 0.0 | 0\% | 0\% |
| 50-54 | 5 | 971 | 0.005149 | 0.6672\% | 0.4899\% | 6.5 | 4.8 | 77\% | 105\% |
| 55-59 | 121 | 13,946 | 0.008676 | 0.9479\% | 0.6999\% | 132.2 | 97.6 | 92\% | 124\% |
| 60-64 | 429 | 32,044 | 0.013388 | 1.3443\% | 1.1204\% | 430.8 | 359.0 | 100\% | 119\% |
| 65-69 | 826 | 43,524 | 0.018978 | 1.9152\% | 1.8033\% | 833.6 | 784.9 | 99\% | 105\% |
| 70-74 | 1,089 | 38,748 | 0.028105 | 2.7060\% | 2.8969\% | 1,048.5 | 1,122.5 | 104\% | 97\% |
| 75-79 | 1,291 | 29,596 | 0.043621 | 4.4322\% | 4.6519\% | 1,311.8 | 1,376.8 | 98\% | 94\% |
| 80-84 | 1,588 | 22,687 | 0.069996 | 7.4452\% | 7.3970\% | 1,689.1 | 1,678.1 | 94\% | 95\% |
| 85-89 | 1,614 | 13,896 | 0.116149 | 11.6850\% | 11.6064\% | 1,623.7 | 1,612.8 | 99\% | 100\% |
| 90-94 | 955 | 5,199 | 0.183689 | 18.9491\% | 18.0113\% | 985.2 | 936.4 | 97\% | 102\% |
| 95-99 | 316 | 1,111 | 0.284428 | 27.7935\% | 27.7919\% | 308.8 | 308.8 | 102\% | 102\% |
| 100+ | 43 | 124 | 0.346774 | 37.1685\% | 47.0399\% | 46.1 | 58.3 | 93\% | 74\% |
| Total | 8,277 | 201,849 |  |  |  | 8,416.2 | 8,340.0 | 98\% | 99\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT MORTALITY EXPERIENCE OF SERVICE RETIREES WOMEN

| Age | TABLE 1B GROUPED |  |  | Assumed Rate |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Deaths | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected <br> (7) / (3) | Proposed (8) / (3) | Expected | Proposed | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 45-49 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 50-54 | 1 | 64 | 0.015625 | 0.3608\% | 0.3258\% | 0.2 | 0.2 | 433\% | 480\% |
| 55-59 | 8 | 1,356 | 0.005900 | 0.6332\% | 0.5187\% | 8.6 | 7.0 | 93\% | 114\% |
| 60-64 | 37 | 2,959 | 0.012504 | 1.0247\% | 0.8444\% | 30.3 | 25.0 | 122\% | 148\% |
| 65-69 | 57 | 3,847 | 0.014817 | 1.4428\% | 1.3262\% | 55.5 | 51.0 | 103\% | 112\% |
| 70-74 | 68 | 3,252 | 0.020910 | 2.0336\% | 2.0996\% | 66.1 | 68.3 | 103\% | 100\% |
| 75-79 | 90 | 2,470 | 0.036437 | 3.2005\% | 3.3608\% | 79.1 | 83.0 | 114\% | 108\% |
| 80-84 | 106 | 2,043 | 0.051884 | 5.2618\% | 5.4046\% | 107.5 | 110.4 | 99\% | 96\% |
| 85-89 | 116 | 1,503 | 0.077179 | 8.8748\% | 8.6179\% | 133.4 | 129.5 | 87\% | 90\% |
| 90-94 | 111 | 728 | 0.152473 | 14.7563\% | 13.3927\% | 107.4 | 97.5 | 103\% | 114\% |
| 95-99 | 43 | 206 | 0.208738 | 21.5187\% | 20.6473\% | 44.3 | 42.5 | 97\% | 101\% |
| 100+ | 7 | 23 | 0.304348 | 25.4498\% | 34.6676\% | 5.9 | 8.0 | 120\% | 88\% |
| Total | 644 | 18,451 |  |  |  | 638.3 | 622.5 | 101\% | 103\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT MORTALITY EXPERIENCE OF SERVICE RETIREES MEN AND WOMEN

| Age | TABLE 1C GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Rate |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 45-49 | 0 | 3 | 0.000000 | 0.3611\% | 0.2975\% | 0.0 | 0.0 | 0\% | 0\% |
| 50-54 | 6 | 1,035 | 0.005797 | 0.6483\% | 0.4797\% | 6.7 | 5.0 | 89\% | 121\% |
| 55-59 | 129 | 15,302 | 0.008430 | 0.9200\% | 0.6838\% | 140.8 | 104.6 | 92\% | 123\% |
| 60-64 | 466 | 35,003 | 0.013313 | 1.3173\% | 1.0971\% | 461.1 | 384.0 | 101\% | 121\% |
| 65-69 | 883 | 47,371 | 0.018640 | 1.8768\% | 1.7646\% | 889.1 | 835.9 | 99\% | 106\% |
| 70-74 | 1,157 | 42,000 | 0.027548 | 2.6539\% | 2.8351\% | 1,114.7 | 1,190.8 | 104\% | 97\% |
| 75-79 | 1,381 | 32,066 | 0.043067 | 4.3373\% | 4.5525\% | 1,390.8 | 1,459.8 | 99\% | 95\% |
| 80-84 | 1,694 | 24,730 | 0.068500 | 7.2648\% | 7.2324\% | 1,796.6 | 1,788.6 | 94\% | 95\% |
| 85-89 | 1,730 | 15,399 | 0.112345 | 11.4107\% | 11.3147\% | 1,757.1 | 1,742.3 | 98\% | 99\% |
| 90-94 | 1,066 | 5,927 | 0.179855 | 18.4341\% | 17.4440\% | 1,092.6 | 1,033.9 | 98\% | 103\% |
| 95-99 | 359 | 1,317 | 0.272589 | 26.8120\% | 26.6743\% | 353.1 | 351.3 | 102\% | 102\% |
| 100+ | 50 | 147 | 0.340136 | 35.3350\% | 45.1041\% | 51.9 | 66.3 | 96\% | 75\% |
| Total | 8,921 | 220,300 |  |  |  | 9,054.5 | 8,962.5 | 99\% | 100\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT MORTALITY EXPERIENCE OF SERVICE RETIREES MEN AND WOMEN

| Plan Year Ending June 30, | TABLE 1D <br> Life Years Exposed | Actual <br> Deaths | Expected Deaths | 10-YEAR PERIOD ENDING 6/30/2013$\qquad$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / Expected | $\begin{aligned} & \hline \text { Actual } \\ & \text { (3) / (2) } \\ & \hline \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 22,431 | 968 | 733.8 | 132\% | 4.3155\% | 3.2716\% |
| 2005 | 22,485 | 918 | 744.9 | 123\% | 4.0827\% | 3.3130\% |
| 2006 | 21,947 | 857 | 754.5 | 114\% | 3.9049\% | 3.4378\% |
| 2007 | 21,929 | 955 | 767.0 | 125\% | 4.3550\% | 3.4975\% |
| 2008 | 21,751 | 804 | 770.7 | 104\% | 3.6964\% | 3.5434\% |
| 2009 | 21,878 | 883 | 787.4 | 112\% | 4.0360\% | 3.5993\% |
| 2010 | 21,703 | 834 | 795.3 | 105\% | 3.8428\% | 3.6644\% |
| 2011 | 21,824 | 955 | 808.3 | 118\% | 4.3759\% | 3.7037\% |
| 2012 | 22,032 | 766 | 818.4 | 94\% | 3.4768\% | 3.7144\% |
| 2013 | 22,320 | 981 | 843.8 | 116\% | 4.3952\% | 3.7803\% |
| Total | 220,300 | 8,921 | 7,824.1 | 114\% | 4.0495\% | 3.5516\% |

[^3]
## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN

| Age | TABLE 2A |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \begin{array}{l} \text { (2) } /(3) \end{array} \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 19 | 0.000000 | 1.4444\% | 0.4277\% | 0.3 | 0.1 | 0\% | 0\% |
| 42 | 0 | 23 | 0.000000 | 1.4841\% | 0.5537\% | 0.3 | 0.1 | 0\% | 0\% |
| 43 | 0 | 25 | 0.000000 | 1.5246\% | 0.6796\% | 0.4 | 0.2 | 0\% | 0\% |
| 44 | 0 | 36 | 0.000000 | 1.5660\% | 0.8055\% | 0.6 | 0.3 | 0\% | 0\% |
| 45 | 0 | 53 | 0.000000 | 1.6079\% | 0.9315\% | 0.9 | 0.5 | 0\% | 0\% |
| 46 | 0 | 67 | 0.000000 | 1.6532\% | 1.0574\% | 1.1 | 0.7 | 0\% | 0\% |
| 47 | 1 | 91 | 0.010989 | 1.6979\% | 1.1833\% | 1.5 | 1.1 | 65\% | 93\% |
| 48 | 1 | 113 | 0.008850 | 1.7687\% | 1.2873\% | 2.0 | 1.5 | 50\% | 69\% |
| 49 | 1 | 133 | 0.007519 | 1.8401\% | 1.3912\% | 2.4 | 1.9 | 41\% | 54\% |
| 50 | 2 | 147 | 0.013605 | 1.9120\% | 1.4952\% | 2.8 | 2.2 | 71\% | 91\% |
| 51 | 1 | 162 | 0.006173 | 2.0266\% | 1.5992\% | 3.3 | 2.6 | 30\% | 39\% |
| 52 | 3 | 174 | 0.017241 | 2.1447\% | 1.7031\% | 3.7 | 3.0 | 80\% | 101\% |
| 53 | 2 | 176 | 0.011364 | 2.2867\% | 1.7916\% | 4.0 | 3.2 | 50\% | 63\% |
| 54 | 4 | 213 | 0.018779 | 2.4343\% | 1.8801\% | 5.2 | 4.0 | 77\% | 100\% |
| 55 | 13 | 215 | 0.060465 | 2.6085\% | 1.9686\% | 5.6 | 4.2 | 232\% | 307\% |
| 56 | 5 | 231 | 0.021645 | 2.6895\% | 2.0571\% | 6.2 | 4.8 | 80\% | 105\% |
| 57 | 4 | 245 | 0.016327 | 2.7715\% | 2.1456\% | 6.8 | 5.3 | 59\% | 76\% |
| 58 | 9 | 224 | 0.040179 | 2.8551\% | 2.2383\% | 6.4 | 5.0 | 141\% | 180\% |
| 59 | 6 | 232 | 0.025862 | 2.9164\% | 2.3309\% | 6.8 | 5.4 | 89\% | 111\% |
| 60 | 6 | 242 | 0.024793 | 2.9783\% | 2.4235\% | 7.2 | 5.9 | 83\% | 102\% |
| 61 | 7 | 260 | 0.026923 | 3.1350\% | 2.5162\% | 8.2 | 6.5 | 86\% | 107\% |
| 62 | 10 | 292 | 0.034247 | 3.2734\% | 2.6088\% | 9.6 | 7.6 | 105\% | 131\% |
| 63 | 9 | 311 | 0.028939 | 3.4465\% | 2.7383\% | 10.7 | 8.5 | 84\% | 106\% |
| 64 | 8 | 297 | 0.026936 | 3.6008\% | 2.8677\% | 10.7 | 8.5 | 75\% | 94\% |
| 65 | 15 | 267 | 0.056180 | 3.7650\% | 2.9972\% | 10.1 | 8.0 | 149\% | 187\% |
| 66 | 7 | 249 | 0.028112 | 3.8492\% | 3.1266\% | 9.6 | 7.8 | 73\% | 90\% |
| 67 | 11 | 223 | 0.049327 | 3.9079\% | 3.2560\% | 8.7 | 7.3 | 126\% | 151\% |
| 68 | 7 | 210 | 0.033333 | 3.9758\% | 3.4680\% | 8.3 | 7.3 | 84\% | 96\% |
| 69 | 7 | 205 | 0.034146 | 4.0089\% | 3.6800\% | 8.2 | 7.5 | 85\% | 93\% |
| 70 | 5 | 182 | 0.027473 | 4.0789\% | 3.8920\% | 7.4 | 7.1 | 67\% | 71\% |
| 71 | 7 | 161 | 0.043478 | 4.2824\% | 4.1040\% | 6.9 | 6.6 | 102\% | 106\% |
| 72 | 2 | 152 | 0.013158 | 4.5348\% | 4.3160\% | 6.9 | 6.6 | 29\% | 30\% |
| 73 | 4 | 138 | 0.028986 | 4.8103\% | 4.6694\% | 6.6 | 6.4 | 60\% | 62\% |
| 74 | 7 | 120 | 0.058333 | 5.1099\% | 5.0227\% | 6.1 | 6.0 | 114\% | 116\% |
| 75 | 7 | 97 | 0.072165 | 5.4793\% | 5.3761\% | 5.3 | 5.2 | 132\% | 134\% |
| 76 | 3 | 94 | 0.031915 | 5.9251\% | 5.7294\% | 5.6 | 5.4 | 54\% | 56\% |
| 77 | 5 | 93 | 0.053763 | 6.4623\% | 6.0828\% | 6.0 | 5.7 | 83\% | 88\% |
| 78 | 9 | 90 | 0.100000 | 7.0498\% | 6.6494\% | 6.3 | 6.0 | 142\% | 150\% |
| 79 | 5 | 80 | 0.062500 | 7.6912\% | 7.2161\% | 6.2 | 5.8 | 81\% | 87\% |
| 80 | 5 | 68 | 0.073529 | 8.3900\% | 7.7827\% | 5.7 | 5.3 | 88\% | 94\% |
| 81 | 7 | 65 | 0.107692 | 9.1500\% | 8.3493\% | 5.9 | 5.4 | 118\% | 129\% |
| 82 | 4 | 53 | 0.075472 | 9.9739\% | 8.9159\% | 5.3 | 4.7 | 76\% | 85\% |
| 83 | 6 | 55 | 0.109091 | 10.7832\% | 9.7808\% | 5.9 | 5.4 | 101\% | 112\% |
| 84 | 6 | 52 | 0.115385 | 11.7507\% | 10.6456\% | 6.1 | 5.5 | 98\% | 108\% |
| 85 | 3 | 46 | 0.065217 | 12.7010\% | 11.5105\% | 5.8 | 5.3 | 51\% | 57\% |
| 86 | 8 | 44 | 0.181818 | 13.4167\% | 12.3753\% | 5.9 | 5.4 | 136\% | 147\% |
| 87 | 4 | 37 | 0.108108 | 14.0240\% | 13.2402\% | 5.2 | 4.9 | 77\% | 82\% |
| 88 | 10 | 31 | 0.322581 | 14.7914\% | 14.5013\% | 4.6 | 4.5 | 218\% | 222\% |
| 89 | 8 | 22 | 0.363636 | 15.4730\% | 15.7625\% | 3.4 | 3.5 | 235\% | 231\% |
| 90 | 2 | 13 | 0.153846 | 16.3129\% | 17.0236\% | 2.1 | 2.2 | 94\% | 90\% |
| 91 | 2 | 12 | 0.166667 | 18.1428\% | 18.2847\% | 2.2 | 2.2 | 92\% | 91\% |
| 92 | 2 | 9 | 0.222222 | 20.3472\% | 19.5459\% | 1.8 | 1.8 | 109\% | 114\% |
| 93 | 1 | 7 | 0.142857 | 22.3332\% | 21.3144\% | 1.6 | 1.5 | 64\% | 67\% |
| 94 | 2 | 5 | 0.400000 | 24.2739\% | 23.0829\% | 1.2 | 1.2 | 165\% | 173\% |
| 95 | 0 | 1 | 0.000000 | 26.4093\% | 24.8515\% | 0.3 | 0.2 | 0\% | 0\% |
| 96 | 0 | 2 | 0.000000 | 28.2045\% | 26.6200\% | 0.6 | 0.5 | 0\% | 0\% |
| 97 | 0 | 2 | 0.000000 | 29.8596\% | 28.3885\% | 0.6 | 0.6 | 0\% | 0\% |
| 98 | 0 | 2 | 0.000000 | 31.6972\% | 30.7886\% | 0.6 | 0.6 | 0\% | 0\% |
| 99 | 2 | 2 | 1.000000 | 33.0026\% | 33.1888\% | 0.7 | 0.7 | 303\% | 301\% |
| Subtotal | 265 | 6,870 |  |  |  | 280.5 | 242.9 | 94\% | 109\% |
| 100 or more | 0 | 0 | N/A | 37.1685\% | 40.3891\% | 0 | 0 | 0\% | 0\% |
| Total | 265 | 6,870 |  |  |  | 280.5 | 242.9 | 94\% | 109\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT MORTALITY EXPERIENCE OF DISABILITY RETIREES WOMEN

| Age | TABLE 2B |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \quad(\mathbf{2}) /(\mathbf{3}) \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ \text { (3) } \times(5) \\ \hline \end{gathered}$ | Proposed $\text { (3) } \times(6)$ | Expected (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 9 | 0.000000 | 1.4837\% | 0.9226\% | 0.1 | 0.1 | 0\% | 0\% |
| 42 | 0 | 13 | 0.000000 | 1.5121\% | 1.0619\% | 0.2 | 0.1 | 0\% | 0\% |
| 43 | 0 | 15 | 0.000000 | 1.5409\% | 1.2013\% | 0.2 | 0.2 | 0\% | 0\% |
| 44 | 0 | 20 | 0.000000 | 1.5630\% | 1.3407\% | 0.3 | 0.3 | 0\% | 0\% |
| 45 | 0 | 21 | 0.000000 | 1.6061\% | 1.4800\% | 0.3 | 0.3 | 0\% | 0\% |
| 46 | 0 | 31 | 0.000000 | 1.6501\% | 1.6194\% | 0.5 | 0.5 | 0\% | 0\% |
| 47 | 1 | 44 | 0.022727 | 1.6950\% | 1.7588\% | 0.7 | 0.8 | 134\% | 129\% |
| 48 | 0 | 47 | 0.000000 | 1.7177\% | 1.8672\% | 0.8 | 0.9 | 0\% | 0\% |
| 49 | 0 | 51 | 0.000000 | 1.7429\% | 1.9756\% | 0.9 | 1.0 | 0\% | 0\% |
| 50 | 0 | 47 | 0.000000 | 1.7433\% | 2.0840\% | 0.8 | 1.0 | 0\% | 0\% |
| 51 | 0 | 53 | 0.000000 | 1.7687\% | 2.1925\% | 0.9 | 1.2 | 0\% | 0\% |
| 52 | 1 | 51 | 0.019608 | 1.7686\% | 2.3009\% | 0.9 | 1.2 | 111\% | 85\% |
| 53 | 1 | 53 | 0.018868 | 1.7665\% | 2.3794\% | 0.9 | 1.3 | 107\% | 79\% |
| 54 | 1 | 65 | 0.015385 | 1.7997\% | 2.4580\% | 1.2 | 1.6 | 85\% | 63\% |
| 55 | 0 | 69 | 0.000000 | 1.8308\% | 2.5365\% | 1.3 | 1.8 | 0\% | 0\% |
| 56 | 2 | 70 | 0.028571 | 1.9016\% | 2.6151\% | 1.3 | 1.8 | 150\% | 109\% |
| 57 | 1 | 71 | 0.014085 | 1.9980\% | 2.6936\% | 1.4 | 1.9 | 70\% | 52\% |
| 58 | 3 | 67 | 0.044776 | 2.1697\% | 2.7573\% | 1.5 | 1.8 | 206\% | 162\% |
| 59 | 0 | 71 | 0.000000 | 2.2668\% | 2.8209\% | 1.6 | 2.0 | 0\% | 0\% |
| 60 | 3 | 82 | 0.036585 | 2.3670\% | 2.8846\% | 1.9 | 2.4 | 155\% | 127\% |
| 61 | 2 | 83 | 0.024096 | 2.4709\% | 2.9483\% | 2.1 | 2.4 | 98\% | 82\% |
| 62 | 3 | 78 | 0.038462 | 2.5239\% | 3.0119\% | 2.0 | 2.3 | 152\% | 128\% |
| 63 | 2 | 64 | 0.031250 | 2.5775\% | 3.0896\% | 1.6 | 2.0 | 121\% | 101\% |
| 64 | 4 | 55 | 0.072727 | 2.7492\% | 3.1674\% | 1.5 | 1.7 | 265\% | 230\% |
| 65 | 3 | 52 | 0.057692 | 2.8706\% | 3.2451\% | 1.5 | 1.7 | 201\% | 178\% |
| 66 | 3 | 47 | 0.063830 | 3.0625\% | 3.3228\% | 1.4 | 1.6 | 208\% | 192\% |
| 67 | 0 | 46 | 0.000000 | 3.1997\% | 3.4005\% | 1.5 | 1.6 | 0\% | 0\% |
| 68 | 0 | 36 | 0.000000 | 3.3456\% | 3.5351\% | 1.2 | 1.3 | 0\% | 0\% |
| 69 | 1 | 45 | 0.022222 | 3.4266\% | 3.6698\% | 1.5 | 1.7 | 65\% | 61\% |
| 70 | 1 | 42 | 0.023810 | 3.5100\% | 3.8044\% | 1.5 | 1.6 | 68\% | 63\% |
| 71 | 2 | 39 | 0.051282 | 3.5716\% | 3.9390\% | 1.4 | 1.5 | 144\% | 130\% |
| 72 | 0 | 36 | 0.000000 | 3.6091\% | 4.0737\% | 1.3 | 1.5 | 0\% | 0\% |
| 73 | 2 | 26 | 0.076923 | 3.6726\% | 4.3220\% | 1.0 | 1.1 | 209\% | 178\% |
| 74 | 3 | 24 | 0.125000 | 3.8549\% | 4.5704\% | 0.9 | 1.1 | 324\% | 274\% |
| 75 | 0 | 20 | 0.000000 | 4.1360\% | 4.8187\% | 0.8 | 1.0 | 0\% | 0\% |
| 76 | 0 | 18 | 0.000000 | 4.3872\% | 5.0671\% | 0.8 | 0.9 | 0\% | 0\% |
| 77 | 1 | 19 | 0.052632 | 4.5998\% | 5.3154\% | 0.9 | 1.0 | 114\% | 99\% |
| 78 | 0 | 17 | 0.000000 | 4.9979\% | 5.7482\% | 0.8 | 1.0 | 0\% | 0\% |
| 79 | 1 | 13 | 0.076923 | 5.4045\% | 6.1810\% | 0.7 | 0.8 | 142\% | 124\% |
| 80 | 0 | 12 | 0.000000 | 5.9727\% | 6.6138\% | 0.7 | 0.8 | 0\% | 0\% |
| 81 | 2 | 11 | 0.181818 | 6.6020\% | 7.0467\% | 0.7 | 0.8 | 275\% | 258\% |
| 82 | 0 | 7 | 0.000000 | 7.2980\% | 7.4795\% | 0.5 | 0.5 | 0\% | 0\% |
| 83 | 1 | 5 | 0.200000 | 8.0664\% | 8.1814\% | 0.4 | 0.4 | 248\% | 244\% |
| 84 | 0 | 4 | 0.000000 | 8.9133\% | 8.8833\% | 0.4 | 0.4 | 0\% | 0\% |
| 85 | 1 | 7 | 0.142857 | 9.7162\% | 9.5853\% | 0.7 | 0.7 | 147\% | 149\% |
| 86 | 0 | 8 | 0.000000 | 10.3681\% | 10.2872\% | 0.8 | 0.8 | 0\% | 0\% |
| 87 | 2 | 7 | 0.285714 | 11.2988\% | 10.9891\% | 0.8 | 0.8 | 253\% | 260\% |
| 88 | 0 | 4 | 0.000000 | 12.2125\% | 12.0588\% | 0.5 | 0.5 | 0\% | 0\% |
| 89 | 0 | 3 | 0.000000 | 13.6802\% | 13.1284\% | 0.4 | 0.4 | 0\% | 0\% |
| 90 | 1 | 1 | 1.000000 | 15.3234\% | 14.1981\% | 0.2 | 0.1 | 653\% | 704\% |
| 91 | 0 | 1 | 0.000000 | 17.2895\% | 15.2677\% | 0.2 | 0.2 | 0\% | 0\% |
| 92 | 0 | 1 | 0.000000 | 18.8204\% | 16.3374\% | 0.2 | 0.2 | 0\% | 0\% |
| 93 | 0 | 1 | 0.000000 | 20.0298\% | 17.8873\% | 0.2 | 0.2 | 0\% | 0\% |
| 94 | 0 | 1 | 0.000000 | 21.1824\% | 19.4373\% | 0.2 | 0.2 | 0\% | 0\% |
| 95 | 0 | 0 | N/A | 22.6541\% | 20.9872\% | 0 | 0 | 0\% | 0\% |
| 96 | 0 | 0 | N/A | 23.3742\% | 22.5371\% | 0 | 0 | 0\% | 0\% |
| 97 | 0 | 0 | N/A | 23.4718\% | 24.0870\% | 0 | 0 | 0\% | 0\% |
| 98 | 0 | 0 | N/A | 23.4917\% | 26.2437\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 24.8039\% | 28.4003\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 48 | 1,783 |  |  |  | 49.2 | 56.6 | 98\% | 85\% |
| 100 or more | 0 | 0 | N/A | 25.4498\% | 34.8703\% | 0 | 0 | 0\% | 0\% |
| Total | 48 | 1,783 |  |  |  | 49.2 | 56.6 | 98\% | 85\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN AND WOMEN

|  | TABLE 2C |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 28 | 0.000000 | 1.4570\% | 0.5868\% | 0.4 | 0.2 | 0\% | 0\% |
| 42 | 0 | 36 | 0.000000 | 1.4942\% | 0.7372\% | 0.5 | 0.3 | 0\% | 0\% |
| 43 | 0 | 40 | 0.000000 | 1.5307\% | 0.8752\% | 0.6 | 0.4 | 0\% | 0\% |
| 44 | 0 | 56 | 0.000000 | 1.5649\% | 0.9967\% | 0.9 | 0.6 | 0\% | 0\% |
| 45 | 0 | 74 | 0.000000 | 1.6074\% | 1.0871\% | 1.2 | 0.8 | 0\% | 0\% |
| 46 | 0 | 98 | 0.000000 | 1.6522\% | 1.2352\% | 1.6 | 1.2 | 0\% | 0\% |
| 47 | 2 | 135 | 0.014815 | 1.6970\% | 1.3709\% | 2.3 | 1.9 | 87\% | 108\% |
| 48 | 1 | 160 | 0.006250 | 1.7537\% | 1.4576\% | 2.8 | 2.3 | 36\% | 43\% |
| 49 | 1 | 184 | 0.005435 | 1.8132\% | 1.5532\% | 3.3 | 2.9 | 30\% | 35\% |
| 50 | 2 | 194 | 0.010309 | 1.8711\% | 1.6379\% | 3.6 | 3.2 | 55\% | 63\% |
| 51 | 1 | 215 | 0.004651 | 1.9630\% | 1.7454\% | 4.2 | 3.8 | 24\% | 27\% |
| 52 | 4 | 225 | 0.017778 | 2.0595\% | 1.8386\% | 4.6 | 4.1 | 86\% | 97\% |
| 53 | 3 | 229 | 0.013100 | 2.1663\% | 1.9277\% | 5.0 | 4.4 | 60\% | 68\% |
| 54 | 5 | 278 | 0.017986 | 2.2859\% | 2.0152\% | 6.4 | 5.6 | 79\% | 89\% |
| 55 | 13 | 284 | 0.045775 | 2.4196\% | 2.1066\% | 6.9 | 6.0 | 189\% | 217\% |
| 56 | 7 | 301 | 0.023256 | 2.5063\% | 2.1869\% | 7.5 | 6.6 | 93\% | 106\% |
| 57 | 5 | 316 | 0.015823 | 2.5977\% | 2.2688\% | 8.2 | 7.2 | 61\% | 70\% |
| 58 | 12 | 291 | 0.041237 | 2.6973\% | 2.3578\% | 7.8 | 6.9 | 153\% | 175\% |
| 59 | 6 | 303 | 0.019802 | 2.7642\% | 2.4457\% | 8.4 | 7.4 | 72\% | 81\% |
| 60 | 9 | 324 | 0.027778 | 2.8236\% | 2.5402\% | 9.1 | 8.2 | 98\% | 109\% |
| 61 | 9 | 343 | 0.026239 | 2.9743\% | 2.6207\% | 10.2 | 9.0 | 88\% | 100\% |
| 62 | 13 | 370 | 0.035135 | 3.1154\% | 2.6938\% | 11.5 | 10.0 | 113\% | 130\% |
| 63 | 11 | 375 | 0.029333 | 3.2982\% | 2.7982\% | 12.4 | 10.5 | 89\% | 105\% |
| 64 | 12 | 352 | 0.034091 | 3.4677\% | 2.9145\% | 12.2 | 10.3 | 98\% | 117\% |
| 65 | 18 | 319 | 0.056426 | 3.6192\% | 3.0376\% | 11.5 | 9.7 | 156\% | 186\% |
| 66 | 10 | 296 | 0.033784 | 3.7243\% | 3.1577\% | 11.0 | 9.3 | 91\% | 107\% |
| 67 | 11 | 269 | 0.040892 | 3.7868\% | 3.2807\% | 10.2 | 8.8 | 108\% | 125\% |
| 68 | 7 | 246 | 0.028455 | 3.8836\% | 3.4779\% | 9.6 | 8.6 | 73\% | 82\% |
| 69 | 8 | 250 | 0.032000 | 3.9041\% | 3.6782\% | 9.8 | 9.2 | 82\% | 87\% |
| 70 | 6 | 224 | 0.026786 | 3.9722\% | 3.8756\% | 8.9 | 8.7 | 67\% | 69\% |
| 71 | 9 | 200 | 0.045000 | 4.1438\% | 4.0718\% | 8.3 | 8.1 | 109\% | 111\% |
| 72 | 2 | 188 | 0.010638 | 4.3575\% | 4.2696\% | 8.2 | 8.0 | 24\% | 25\% |
| 73 | 6 | 164 | 0.036585 | 4.6299\% | 4.6143\% | 7.6 | 7.6 | 79\% | 79\% |
| 74 | 10 | 144 | 0.069444 | 4.9007\% | 4.9473\% | 7.1 | 7.1 | 142\% | 140\% |
| 75 | 7 | 117 | 0.059829 | 5.2497\% | 5.2808\% | 6.1 | 6.2 | 114\% | 113\% |
| 76 | 3 | 112 | 0.026786 | 5.6779\% | 5.6230\% | 6.4 | 6.3 | 47\% | 48\% |
| 77 | 6 | 112 | 0.053571 | 6.1463\% | 5.9526\% | 6.9 | 6.7 | 87\% | 90\% |
| 78 | 9 | 107 | 0.084112 | 6.7238\% | 6.5062\% | 7.2 | 7.0 | 125\% | 129\% |
| 79 | 6 | 93 | 0.064516 | 7.3716\% | 7.0714\% | 6.9 | 6.6 | 88\% | 91\% |
| 80 | 5 | 80 | 0.062500 | 8.0274\% | 7.6074\% | 6.4 | 6.1 | 78\% | 82\% |
| 81 | 9 | 76 | 0.118421 | 8.7812\% | 8.1608\% | 6.7 | 6.2 | 135\% | 145\% |
| 82 | 4 | 60 | 0.066667 | 9.6617\% | 8.7483\% | 5.8 | 5.2 | 69\% | 76\% |
| 83 | 7 | 60 | 0.116667 | 10.5568\% | 9.6475\% | 6.3 | 5.8 | 111\% | 121\% |
| 84 | 6 | 56 | 0.107143 | 11.5480\% | 10.5198\% | 6.5 | 5.9 | 93\% | 102\% |
| 85 | 4 | 53 | 0.075472 | 12.3068\% | 11.2562\% | 6.5 | 6.0 | 61\% | 67\% |
| 86 | 8 | 52 | 0.153846 | 12.9477\% | 12.0541\% | 6.7 | 6.3 | 119\% | 128\% |
| 87 | 6 | 44 | 0.136364 | 13.5904\% | 12.8821\% | 6.0 | 5.7 | 100\% | 106\% |
| 88 | 10 | 35 | 0.285714 | 14.4967\% | 14.2222\% | 5.1 | 5.0 | 197\% | 201\% |
| 89 | 8 | 25 | 0.320000 | 15.2579\% | 15.4464\% | 3.8 | 3.9 | 210\% | 207\% |
| 90 | 3 | 14 | 0.214286 | 16.2422\% | 16.8218\% | 2.3 | 2.4 | 132\% | 127\% |
| 91 | 2 | 13 | 0.153846 | 18.0772\% | 18.0527\% | 2.4 | 2.3 | 85\% | 85\% |
| 92 | 2 | 10 | 0.200000 | 20.1945\% | 19.2250\% | 2.0 | 1.9 | 99\% | 104\% |
| 93 | 1 | 8 | 0.125000 | 22.0453\% | 20.8860\% | 1.8 | 1.7 | 57\% | 60\% |
| 94 | 2 | 6 | 0.333333 | 23.7587\% | 22.4753\% | 1.4 | 1.3 | 140\% | 148\% |
| 95 | 0 | 1 | 0.000000 | 26.4093\% | 24.8515\% | 0.3 | 0.2 | 0\% | 0\% |
| 96 | 0 | 2 | 0.000000 | 28.2045\% | 26.6200\% | 0.6 | 0.5 | 0\% | 0\% |
| 97 | 0 | 2 | 0.000000 | 29.8596\% | 28.3885\% | 0.6 | 0.6 | 0\% | 0\% |
| 98 | 0 | 2 | 0.000000 | 31.6972\% | 30.7886\% | 0.6 | 0.6 | 0\% | 0\% |
| 99 | 2 | 2 | 1.000000 | 33.0026\% | 33.1888\% | 0.7 | 0.7 | 303\% | 301\% |
| Subtotal | 313 | 8,653 |  |  |  | 329.7 | 299.5 | 95\% | 105\% |
| 100 or more | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| Total | 313 | 8,653 |  |  |  | 329.7 | 299.5 | 95\% | 105\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN

|  | TABLE 2A GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected $(7) /(3)$ | Proposed (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 103 | 0.000000 | 1.5152\% | 0.6490\% | 1.6 | 0.7 | 0\% | 0\% |
| 45-49 | 3 | 457 | 0.006565 | 1.7398\% | 1.2219\% | 8.0 | 5.6 | 38\% | 54\% |
| 50-54 | 12 | 872 | 0.013761 | 2.1829\% | 1.7099\% | 19.0 | 14.9 | 63\% | 80\% |
| 55-59 | 37 | 1,147 | 0.032258 | 2.7701\% | 2.1502\% | 31.8 | 24.7 | 116\% | 150\% |
| 60-64 | 40 | 1,402 | 0.028531 | 3.3046\% | 2.6432\% | 46.3 | 37.1 | 86\% | 108\% |
| 65-69 | 47 | 1,154 | 0.040728 | 3.8925\% | 3.2821\% | 44.9 | 37.9 | 105\% | 124\% |
| 70-74 | 25 | 753 | 0.033201 | 4.5128\% | 4.3456\% | 34.0 | 32.7 | 74\% | 76\% |
| 75-79 | 29 | 454 | 0.063877 | 6.4741\% | 6.1707\% | 29.4 | 28.0 | 99\% | 104\% |
| 80-84 | 28 | 293 | 0.095563 | 9.8908\% | 8.9965\% | 29.0 | 26.4 | 97\% | 106\% |
| 85-89 | 33 | 180 | 0.183333 | 13.8467\% | 13.1122\% | 24.9 | 23.6 | 132\% | 140\% |
| 90-94 | 9 | 46 | 0.195652 | 19.3610\% | 19.1577\% | 8.9 | 8.8 | 101\% | 102\% |
| 95-99 | 2 | 9 | 0.222222 | 30.2152\% | 29.2026\% | 2.7 | 2.6 | 74\% | 76\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 265 | 6,870 |  |  |  | 280.5 | 242.9 | 94\% | 109\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT MORTALITY EXPERIENCE OF DISABILITY RETIREES WOMEN

|  | TABLE 2B GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \begin{array}{l} \text { (2) } /(3) \end{array} \\ & \hline \end{aligned}$ | Expected $(7) /(3)$ | Proposed (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 57 | 0.000000 | 1.5331\% | 1.1744\% | 0.9 | 0.7 | 0\% | 0\% |
| 45-49 | 1 | 194 | 0.005155 | 1.6963\% | 1.7896\% | 3.3 | 3.5 | 30\% | 29\% |
| 50-54 | 3 | 269 | 0.011152 | 1.7713\% | 2.2951\% | 4.8 | 6.2 | 63\% | 49\% |
| 55-59 | 6 | 348 | 0.017241 | 2.0334\% | 2.6849\% | 7.1 | 9.3 | 85\% | 64\% |
| 60-64 | 14 | 362 | 0.038674 | 2.5199\% | 3.0058\% | 9.1 | 10.9 | 153\% | 129\% |
| 65-69 | 7 | 226 | 0.030973 | 3.1639\% | 3.4236\% | 7.2 | 7.7 | 98\% | 90\% |
| 70-74 | 8 | 167 | 0.047904 | 3.6206\% | 4.0846\% | 6.0 | 6.8 | 132\% | 117\% |
| 75-79 | 2 | 87 | 0.022989 | 4.6472\% | 5.3638\% | 4.0 | 4.7 | 49\% | 43\% |
| 80-84 | 3 | 39 | 0.076923 | 6.9581\% | 7.3250\% | 2.7 | 2.9 | 111\% | 105\% |
| 85-89 | 3 | 29 | 0.103448 | 11.0324\% | 10.8255\% | 3.2 | 3.1 | 94\% | 96\% |
| 90-94 | 1 | 5 | 0.200000 | 18.5291\% | 16.6256\% | 0.9 | 0.8 | 108\% | 120\% |
| 95-99 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 48 | 1,783 |  |  |  | 49.2 | 56.6 | 98\% | 85\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN AND WOMEN

|  | TABLE 2C GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected $(2) /(7)$ | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 160 | 0.000000 | 1.5216\% | 0.8362\% | 2.4 | 1.3 | 0\% | 0\% |
| 45-49 | 4 | 651 | 0.006144 | 1.7268\% | 1.3911\% | 11.2 | 9.1 | 36\% | 44\% |
| 50-54 | 15 | 1,141 | 0.013146 | 2.0859\% | 1.8478\% | 23.8 | 21.1 | 63\% | 71\% |
| 55-59 | 43 | 1,495 | 0.028763 | 2.5986\% | 2.2747\% | 38.8 | 34.0 | 111\% | 126\% |
| 60-64 | 54 | 1,764 | 0.030612 | 3.1435\% | 2.7176\% | 55.5 | 47.9 | 97\% | 113\% |
| 65-69 | 54 | 1,380 | 0.039130 | 3.7731\% | 3.3053\% | 52.1 | 45.6 | 104\% | 118\% |
| 70-74 | 33 | 920 | 0.035870 | 4.3508\% | 4.2982\% | 40.0 | 39.5 | 82\% | 83\% |
| 75-79 | 31 | 541 | 0.057301 | 6.1803\% | 6.0409\% | 33.4 | 32.7 | 93\% | 95\% |
| 80-84 | 31 | 332 | 0.093373 | 9.5463\% | 8.8002\% | 31.7 | 29.2 | 98\% | 106\% |
| 85-89 | 36 | 209 | 0.172249 | 13.4562\% | 12.7949\% | 28.1 | 26.7 | 128\% | 135\% |
| 90-94 | 10 | 51 | 0.196078 | 19.2795\% | 18.9094\% | 9.8 | 9.6 | 102\% | 104\% |
| 95-99 | 2 | 9 | 0.222222 | 30.2152\% | 29.2026\% | 2.7 | 2.6 | 74\% | 76\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 313 | 8,653 |  |  |  | 329.7 | 299.5 | 95\% | 105\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN

| Age | TABLE 2A |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 68 | 0.000000 | 1.4841\% | 0.4643\% | 1.0 | 0.3 | 0\% | 0\% |
| 42 | 1 | 97 | 0.010309 | 1.5295\% | 0.6030\% | 1.5 | 0.6 | 67\% | 171\% |
| 43 | 0 | 117 | 0.000000 | 1.5760\% | 0.7413\% | 1.8 | 0.9 | 0\% | 0\% |
| 44 | 0 | 136 | 0.000000 | 1.6237\% | 0.8782\% | 2.2 | 1.2 | 0\% | 0\% |
| 45 | 0 | 174 | 0.000000 | 1.6723\% | 1.0132\% | 2.9 | 1.8 | 0\% | 0\% |
| 46 | 3 | 199 | 0.015075 | 1.7246\% | 1.1457\% | 3.4 | 2.3 | 87\% | 132\% |
| 47 | 3 | 232 | 0.012931 | 1.7766\% | 1.2757\% | 4.1 | 3.0 | 73\% | 101\% |
| 48 | 4 | 270 | 0.014815 | 1.8563\% | 1.3794\% | 5.0 | 3.7 | 80\% | 107\% |
| 49 | 3 | 316 | 0.009494 | 1.9372\% | 1.4804\% | 6.1 | 4.7 | 49\% | 64\% |
| 50 | 5 | 356 | 0.014045 | 2.0191\% | 1.5788\% | 7.2 | 5.6 | 70\% | 89\% |
| 51 | 8 | 386 | 0.020725 | 2.1466\% | 1.6744\% | 8.3 | 6.5 | 97\% | 124\% |
| 52 | 12 | 426 | 0.028169 | 2.2787\% | 1.7670\% | 9.7 | 7.5 | 124\% | 159\% |
| 53 | 9 | 446 | 0.020179 | 2.4295\% | 1.8420\% | 10.8 | 8.2 | 83\% | 110\% |
| 54 | 15 | 494 | 0.030364 | 2.5864\% | 1.9177\% | 12.8 | 9.5 | 117\% | 158\% |
| 55 | 21 | 538 | 0.039033 | 2.7631\% | 1.9960\% | 14.9 | 10.7 | 141\% | 196\% |
| 56 | 20 | 604 | 0.033113 | 2.8401\% | 2.0785\% | 17.2 | 12.6 | 117\% | 159\% |
| 57 | 21 | 652 | 0.032209 | 2.9177\% | 2.1668\% | 19.0 | 14.1 | 110\% | 149\% |
| 58 | 23 | 634 | 0.036278 | 2.9966\% | 2.2656\% | 19.0 | 14.4 | 121\% | 160\% |
| 59 | 19 | 641 | 0.029641 | 3.0609\% | 2.3705\% | 19.6 | 15.2 | 97\% | 125\% |
| 60 | 19 | 673 | 0.028232 | 3.1259\% | 2.4814\% | 21.0 | 16.7 | 90\% | 114\% |
| 61 | 20 | 689 | 0.029028 | 3.2804\% | 2.5964\% | 22.6 | 17.9 | 88\% | 112\% |
| 62 | 20 | 690 | 0.028986 | 3.4252\% | 2.7138\% | 23.6 | 18.7 | 85\% | 107\% |
| 63 | 19 | 675 | 0.028148 | 3.5954\% | 2.8702\% | 24.3 | 19.4 | 78\% | 98\% |
| 64 | 28 | 667 | 0.041979 | 3.7564\% | 3.0262\% | 25.1 | 20.2 | 112\% | 139\% |
| 65 | 30 | 620 | 0.048387 | 3.9277\% | 3.1809\% | 24.4 | 19.7 | 123\% | 152\% |
| 66 | 17 | 550 | 0.030909 | 4.0033\% | 3.3338\% | 22.0 | 18.3 | 77\% | 93\% |
| 67 | 26 | 490 | 0.053061 | 4.0644\% | 3.4857\% | 19.9 | 17.1 | 131\% | 152\% |
| 68 | 25 | 464 | 0.053879 | 4.1476\% | 3.7241\% | 19.2 | 17.3 | 130\% | 145\% |
| 69 | 17 | 427 | 0.039813 | 4.1821\% | 3.9627\% | 17.9 | 16.9 | 95\% | 100\% |
| 70 | 14 | 390 | 0.035897 | 4.2681\% | 4.2004\% | 16.6 | 16.4 | 84\% | 85\% |
| 71 | 17 | 353 | 0.048159 | 4.4810\% | 4.4379\% | 15.8 | 15.7 | 107\% | 109\% |
| 72 | 16 | 344 | 0.046512 | 4.7452\% | 4.6748\% | 16.3 | 16.1 | 98\% | 99\% |
| 73 | 13 | 312 | 0.041667 | 5.0334\% | 5.0643\% | 15.7 | 15.8 | 83\% | 82\% |
| 74 | 17 | 288 | 0.059028 | 5.3469\% | 5.4526\% | 15.4 | 15.7 | 110\% | 108\% |
| 75 | 18 | 264 | 0.068182 | 5.7161\% | 5.8386\% | 15.1 | 15.4 | 119\% | 117\% |
| 76 | 13 | 241 | 0.053942 | 6.1811\% | 6.2236\% | 14.9 | 15.0 | 87\% | 87\% |
| 77 | 14 | 230 | 0.060870 | 6.7210\% | 6.6054\% | 15.5 | 15.2 | 91\% | 92\% |
| 78 | 17 | 218 | 0.077982 | 7.3098\% | 7.2148\% | 15.9 | 15.7 | 107\% | 108\% |
| 79 | 15 | 208 | 0.072115 | 7.9507\% | 7.8215\% | 16.5 | 16.3 | 91\% | 92\% |
| 80 | 15 | 191 | 0.078534 | 8.6468\% | 8.4262\% | 16.5 | 16.1 | 91\% | 93\% |
| 81 | 17 | 174 | 0.097701 | 9.4016\% | 9.0276\% | 16.4 | 15.7 | 104\% | 108\% |
| 82 | 12 | 155 | 0.077419 | 10.2172\% | 9.6264\% | 15.8 | 14.9 | 76\% | 80\% |
| 83 | 12 | 146 | 0.082192 | 11.0462\% | 10.5450\% | 16.1 | 15.4 | 74\% | 78\% |
| 84 | 18 | 129 | 0.139535 | 12.0010\% | 11.4610\% | 15.5 | 14.8 | 116\% | 122\% |
| 85 | 10 | 108 | 0.092593 | 12.9715\% | 12.3743\% | 14.0 | 13.4 | 71\% | 75\% |
| 86 | 14 | 90 | 0.155556 | 13.7025\% | 13.2837\% | 12.3 | 12.0 | 114\% | 117\% |
| 87 | 7 | 73 | 0.095890 | 14.2795\% | 14.1888\% | 10.4 | 10.4 | 67\% | 68\% |
| 88 | 17 | 61 | 0.278689 | 15.0155\% | 15.5101\% | 9.2 | 9.5 | 186\% | 180\% |
| 89 | 11 | 38 | 0.289474 | 15.7075\% | 16.8210\% | 6.0 | 6.4 | 184\% | 172\% |
| 90 | 4 | 26 | 0.153846 | 16.5102\% | 18.1205\% | 4.3 | 4.7 | 93\% | 85\% |
| 91 | 4 | 21 | 0.190476 | 18.3623\% | 19.4074\% | 3.9 | 4.1 | 104\% | 98\% |
| 92 | 2 | 15 | 0.133333 | 20.5314\% | 20.6763\% | 3.1 | 3.1 | 65\% | 64\% |
| 93 | 2 | 10 | 0.200000 | 22.5354\% | 22.4555\% | 2.3 | 2.2 | 89\% | 89\% |
| 94 | 2 | 9 | 0.222222 | 24.4937\% | 24.2273\% | 2.2 | 2.2 | 91\% | 92\% |
| 95 | 2 | 5 | 0.400000 | 26.5684\% | 25.9989\% | 1.3 | 1.3 | 151\% | 154\% |
| 96 | 1 | 4 | 0.250000 | 28.3744\% | 27.7814\% | 1.1 | 1.1 | 88\% | 90\% |
| 97 | 0 | 2 | 0.000000 | 30.0395\% | 29.5550\% | 0.6 | 0.6 | 0\% | 0\% |
| 98 | 0 | 2 | 0.000000 | 31.7925\% | 31.9759\% | 0.6 | 0.6 | 0\% | 0\% |
| 99 | 2 | 3 | 0.666667 | 33.1018\% | 34.3885\% | 1.0 | 1.0 | 201\% | 194\% |
| Subtotal | 694 | 16,841 |  |  |  | 697.0 | 611.5 | 100\% | 113\% |
| 100 or more | 1 | 3 | 0.333333 | 37.1685\% | 41.8491\% | 1.1 | 1.3 | 90\% | 80\% |
| Total | 695 | 16,844 |  |  |  | 698.1 | 612.8 | 100\% | 113\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT MORTALITY EXPERIENCE OF DISABILITY RETIREES WOMEN

|  | TABLE 2B |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 1 | 29 | 0.034483 | 1.5525\% | 0.9910\% | 0.5 | 0.3 | 222\% | 348\% |
| 42 | 0 | 36 | 0.000000 | 1.5823\% | 1.1369\% | 0.6 | 0.4 | 0\% | 0\% |
| 43 | 1 | 44 | 0.022727 | 1.6123\% | 1.2792\% | 0.7 | 0.6 | 141\% | 178\% |
| 44 | 0 | 52 | 0.000000 | 1.6355\% | 1.4176\% | 0.9 | 0.7 | 0\% | 0\% |
| 45 | 1 | 55 | 0.018182 | 1.6857\% | 1.5526\% | 0.9 | 0.9 | 108\% | 117\% |
| 46 | 0 | 67 | 0.000000 | 1.7372\% | 1.6837\% | 1.2 | 1.1 | 0\% | 0\% |
| 47 | 1 | 79 | 0.012658 | 1.7899\% | 1.8115\% | 1.4 | 1.4 | 71\% | 70\% |
| 48 | 1 | 84 | 0.011905 | 1.8139\% | 1.9058\% | 1.5 | 1.6 | 66\% | 62\% |
| 49 | 1 | 97 | 0.010309 | 1.8405\% | 2.0007\% | 1.8 | 1.9 | 56\% | 52\% |
| 50 | 1 | 98 | 0.010204 | 1.8353\% | 2.0987\% | 1.8 | 2.1 | 56\% | 49\% |
| 51 | 1 | 107 | 0.009346 | 1.8563\% | 2.2008\% | 2.0 | 2.4 | 50\% | 42\% |
| 52 | 2 | 113 | 0.017699 | 1.8450\% | 2.3092\% | 2.1 | 2.6 | 96\% | 77\% |
| 53 | 2 | 124 | 0.016129 | 1.8316\% | 2.3940\% | 2.3 | 3.0 | 88\% | 67\% |
| 54 | 2 | 144 | 0.013889 | 1.8548\% | 2.4855\% | 2.7 | 3.6 | 75\% | 56\% |
| 55 | 0 | 148 | 0.000000 | 1.8755\% | 2.5832\% | 2.8 | 3.8 | 0\% | 0\% |
| 56 | 4 | 155 | 0.025806 | 1.9362\% | 2.6856\% | 3.0 | 4.2 | 133\% | 96\% |
| 57 | 2 | 156 | 0.012821 | 2.0283\% | 2.7913\% | 3.2 | 4.4 | 63\% | 46\% |
| 58 | 4 | 156 | 0.025641 | 2.2025\% | 2.8828\% | 3.4 | 4.5 | 116\% | 89\% |
| 59 | 2 | 162 | 0.012346 | 2.3011\% | 2.9744\% | 3.7 | 4.8 | 54\% | 42\% |
| 60 | 5 | 161 | 0.031056 | 2.4029\% | 3.0636\% | 3.9 | 4.9 | 129\% | 101\% |
| 61 | 2 | 165 | 0.012121 | 2.5083\% | 3.1501\% | 4.1 | 5.2 | 48\% | 38\% |
| 62 | 7 | 150 | 0.046667 | 2.5622\% | 3.2323\% | 3.8 | 4.8 | 182\% | 144\% |
| 63 | 5 | 141 | 0.035461 | 2.6166\% | 3.3266\% | 3.7 | 4.7 | 136\% | 107\% |
| 64 | 5 | 123 | 0.040650 | 2.7909\% | 3.4169\% | 3.4 | 4.2 | 146\% | 119\% |
| 65 | 3 | 118 | 0.025424 | 2.9141\% | 3.5037\% | 3.4 | 4.1 | 87\% | 73\% |
| 66 | 3 | 107 | 0.028037 | 3.1089\% | 3.5883\% | 3.3 | 3.8 | 90\% | 78\% |
| 67 | 0 | 97 | 0.000000 | 3.2481\% | 3.6707\% | 3.2 | 3.6 | 0\% | 0\% |
| 68 | 1 | 90 | 0.011111 | 3.3962\% | 3.8133\% | 3.1 | 3.4 | 33\% | 29\% |
| 69 | 1 | 87 | 0.011494 | 3.4785\% | 3.9553\% | 3.0 | 3.4 | 33\% | 29\% |
| 70 | 2 | 80 | 0.025000 | 3.5632\% | 4.0962\% | 2.9 | 3.3 | 70\% | 61\% |
| 71 | 2 | 73 | 0.027397 | 3.6366\% | 4.2368\% | 2.7 | 3.1 | 75\% | 65\% |
| 72 | 0 | 70 | 0.000000 | 3.6748\% | 4.3767\% | 2.6 | 3.1 | 0\% | 0\% |
| 73 | 5 | 58 | 0.086207 | 3.7508\% | 4.6388\% | 2.2 | 2.7 | 230\% | 186\% |
| 74 | 4 | 50 | 0.080000 | 3.9370\% | 4.8993\% | 2.0 | 2.4 | 203\% | 163\% |
| 75 | 1 | 45 | 0.022222 | 4.2369\% | 5.1602\% | 1.9 | 2.3 | 52\% | 43\% |
| 76 | 1 | 42 | 0.023810 | 4.4942\% | 5.4218\% | 1.9 | 2.3 | 53\% | 44\% |
| 77 | 3 | 37 | 0.081081 | 4.6978\% | 5.6846\% | 1.7 | 2.1 | 173\% | 143\% |
| 78 | 0 | 29 | 0.000000 | 5.1043\% | 6.1456\% | 1.5 | 1.8 | 0\% | 0\% |
| 79 | 1 | 28 | 0.035714 | 5.5196\% | 6.6103\% | 1.5 | 1.9 | 65\% | 54\% |
| 80 | 2 | 29 | 0.068966 | 6.0999\% | 7.0761\% | 1.8 | 2.1 | 113\% | 97\% |
| 81 | 3 | 24 | 0.125000 | 6.7426\% | 7.5453\% | 1.6 | 1.8 | 185\% | 166\% |
| 82 | 0 | 18 | 0.000000 | 7.4535\% | 8.0153\% | 1.3 | 1.4 | 0\% | 0\% |
| 83 | 2 | 18 | 0.111111 | 8.2382\% | 8.7774\% | 1.5 | 1.6 | 135\% | 127\% |
| 84 | 2 | 15 | 0.133333 | 9.1031\% | 9.5393\% | 1.4 | 1.4 | 146\% | 140\% |
| 85 | 2 | 14 | 0.142857 | 9.8932\% | 10.3015\% | 1.4 | 1.4 | 144\% | 139\% |
| 86 | 1 | 12 | 0.083333 | 10.5252\% | 11.0604\% | 1.3 | 1.3 | 79\% | 75\% |
| 87 | 2 | 10 | 0.200000 | 11.4355\% | 11.8114\% | 1.1 | 1.2 | 175\% | 169\% |
| 88 | 1 | 7 | 0.142857 | 12.3603\% | 12.9505\% | 0.9 | 0.9 | 116\% | 110\% |
| 89 | 0 | 4 | 0.000000 | 13.8041\% | 14.0834\% | 0.6 | 0.6 | 0\% | 0\% |
| 90 | 1 | 3 | 0.333333 | 15.4621\% | 15.2059\% | 0.5 | 0.5 | 216\% | 219\% |
| 91 | 0 | 3 | 0.000000 | 17.4460\% | 16.3164\% | 0.5 | 0.5 | 0\% | 0\% |
| 92 | 0 | 4 | 0.000000 | 18.9908\% | 17.4115\% | 0.8 | 0.7 | 0\% | 0\% |
| 93 | 1 | 4 | 0.250000 | 20.1504\% | 19.0011\% | 0.8 | 0.8 | 124\% | 132\% |
| 94 | 0 | 3 | 0.000000 | 21.3100\% | 20.5761\% | 0.6 | 0.6 | 0\% | 0\% |
| 95 | 1 | 1 | 1.000000 | 22.7906\% | 22.1400\% | 0.2 | 0.2 | 439\% | 452\% |
| 96 | 0 | 2 | 0.000000 | 23.5150\% | 23.7098\% | 0.5 | 0.5 | 0\% | 0\% |
| 97 | 1 | 2 | 0.500000 | 23.5424\% | 25.2658\% | 0.5 | 0.5 | 212\% | 198\% |
| 98 | 0 | 1 | 0.000000 | 23.5623\% | 27.4526\% | 0.2 | 0.3 | 0\% | 0\% |
| 99 | 1 | 1 | 1.000000 | 24.8785\% | 29.6244\% | 0.2 | 0.3 | 402\% | 338\% |
| Subtotal | 97 | 3,832 |  |  |  | 109.7 | 129.9 | 88\% | 75\% |
| 100 or more | 1 | 2 | 0.500000 | 25.4498\% | 36.3732\% | 0.5 | 0.7 | 196\% | 137\% |
| Total | 98 | 3,834 |  |  |  | 110.2 | 130.6 | 89\% | 75\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN AND WOMEN

|  | TABLE 2C |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed $(\mathbf{2}) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 1 | 97 | 0.010309 | 1.5045\% | 0.6218\% | 1.5 | 0.6 | 69\% | 166\% |
| 42 | 1 | 133 | 0.007519 | 1.5438\% | 0.7475\% | 2.1 | 1.0 | 49\% | 101\% |
| 43 | 1 | 161 | 0.006211 | 1.5859\% | 0.8883\% | 2.6 | 1.4 | 39\% | 70\% |
| 44 | 0 | 188 | 0.000000 | 1.6270\% | 1.0274\% | 3.1 | 1.9 | 0\% | 0\% |
| 45 | 1 | 229 | 0.004367 | 1.6755\% | 1.1427\% | 3.8 | 2.6 | 26\% | 38\% |
| 46 | 3 | 266 | 0.011278 | 1.7278\% | 1.2812\% | 4.6 | 3.4 | 65\% | 88\% |
| 47 | 4 | 311 | 0.012862 | 1.7800\% | 1.4118\% | 5.5 | 4.4 | 72\% | 91\% |
| 48 | 5 | 354 | 0.014124 | 1.8462\% | 1.5043\% | 6.5 | 5.3 | 77\% | 94\% |
| 49 | 4 | 413 | 0.009685 | 1.9145\% | 1.6026\% | 7.9 | 6.6 | 51\% | 60\% |
| 50 | 6 | 454 | 0.013216 | 1.9794\% | 1.6910\% | 9.0 | 7.7 | 67\% | 78\% |
| 51 | 9 | 493 | 0.018256 | 2.0836\% | 1.7886\% | 10.3 | 8.8 | 88\% | 102\% |
| 52 | 14 | 539 | 0.025974 | 2.1878\% | 1.8807\% | 11.8 | 10.1 | 119\% | 138\% |
| 53 | 11 | 570 | 0.019298 | 2.2994\% | 1.9621\% | 13.1 | 11.2 | 84\% | 98\% |
| 54 | 17 | 638 | 0.026646 | 2.4213\% | 2.0458\% | 15.4 | 13.1 | 110\% | 130\% |
| 55 | 21 | 686 | 0.030612 | 2.5716\% | 2.1227\% | 17.6 | 14.6 | 119\% | 144\% |
| 56 | 24 | 759 | 0.031621 | 2.6555\% | 2.2025\% | 20.2 | 16.7 | 119\% | 144\% |
| 57 | 23 | 808 | 0.028465 | 2.7460\% | 2.2874\% | 22.2 | 18.5 | 104\% | 124\% |
| 58 | 27 | 790 | 0.034177 | 2.8398\% | 2.3875\% | 22.4 | 18.9 | 120\% | 143\% |
| 59 | 21 | 803 | 0.026152 | 2.9076\% | 2.4923\% | 23.3 | 20.0 | 90\% | 105\% |
| 60 | 24 | 834 | 0.028777 | 2.9863\% | 2.5938\% | 24.9 | 21.6 | 96\% | 111\% |
| 61 | 22 | 854 | 0.025761 | 3.1312\% | 2.7033\% | 26.7 | 23.1 | 82\% | 95\% |
| 62 | 27 | 840 | 0.032143 | 3.2711\% | 2.8064\% | 27.5 | 23.6 | 98\% | 115\% |
| 63 | 24 | 816 | 0.029412 | 3.4263\% | 2.9491\% | 28.0 | 24.1 | 86\% | 100\% |
| 64 | 33 | 790 | 0.041772 | 3.6061\% | 3.0870\% | 28.5 | 24.4 | 116\% | 135\% |
| 65 | 33 | 738 | 0.044715 | 3.7656\% | 3.2325\% | 27.8 | 23.9 | 119\% | 138\% |
| 66 | 20 | 657 | 0.030441 | 3.8576\% | 3.3753\% | 25.3 | 22.2 | 79\% | 90\% |
| 67 | 26 | 587 | 0.044293 | 3.9295\% | 3.5163\% | 23.1 | 20.6 | 113\% | 126\% |
| 68 | 26 | 554 | 0.046931 | 4.0255\% | 3.7386\% | 22.3 | 20.7 | 117\% | 126\% |
| 69 | 18 | 514 | 0.035019 | 4.0630\% | 3.9614\% | 20.9 | 20.4 | 86\% | 88\% |
| 70 | 16 | 470 | 0.034043 | 4.1481\% | 4.1827\% | 19.5 | 19.7 | 82\% | 81\% |
| 71 | 19 | 426 | 0.044601 | 4.3363\% | 4.4034\% | 18.5 | 18.8 | 103\% | 101\% |
| 72 | 16 | 414 | 0.038647 | 4.5642\% | 4.6244\% | 18.9 | 19.1 | 85\% | 84\% |
| 73 | 18 | 370 | 0.048649 | 4.8323\% | 4.9976\% | 17.9 | 18.5 | 101\% | 97\% |
| 74 | 21 | 338 | 0.062130 | 5.1383\% | 5.3707\% | 17.4 | 18.2 | 121\% | 116\% |
| 75 | 19 | 309 | 0.061489 | 5.5007\% | 5.7398\% | 17.0 | 17.7 | 112\% | 107\% |
| 76 | 14 | 283 | 0.049470 | 5.9307\% | 6.1046\% | 16.8 | 17.3 | 83\% | 81\% |
| 77 | 17 | 267 | 0.063670 | 6.4406\% | 6.4778\% | 17.2 | 17.3 | 99\% | 98\% |
| 78 | 17 | 247 | 0.068826 | 7.0509\% | 7.0892\% | 17.4 | 17.5 | 98\% | 97\% |
| 79 | 16 | 236 | 0.067797 | 7.6623\% | 7.6778\% | 18.1 | 18.1 | 88\% | 88\% |
| 80 | 17 | 220 | 0.077273 | 8.311\% | 8.2482\% | 18.3 | 18.1 | 93\% | 94\% |
| 81 | 20 | 198 | 0.101010 | 9.0793\% | 8.8479\% | 18.0 | 17.5 | 111\% | 114\% |
| 82 | 12 | 173 | 0.069364 | 9.9296\% | 9.4588\% | 17.2 | 16.4 | 70\% | 73\% |
| 83 | 14 | 164 | 0.085366 | 10.7380\% | 10.3510\% | 17.6 | 17.0 | 79\% | 82\% |
| 84 | 20 | 144 | 0.138889 | 11.6991\% | 11.2608\% | 16.8 | 16.2 | 119\% | 123\% |
| 85 | 12 | 122 | 0.098361 | 12.6183\% | 12.1365\% | 15.4 | 14.8 | 78\% | 81\% |
| 86 | 15 | 102 | 0.147059 | 13.3287\% | 13.0221\% | 13.6 | 13.3 | 110\% | 113\% |
| 87 | 9 | 83 | 0.108434 | 13.9368\% | 13.9023\% | 11.6 | 11.5 | 78\% | 78\% |
| 88 | 18 | 68 | 0.264706 | 14.7422\% | 15.2466\% | 10.0 | 10.4 | 180\% | 174\% |
| 89 | 11 | 42 | 0.261905 | 15.5262\% | 16.5603\% | 6.5 | 7.0 | 169\% | 158\% |
| 90 | 5 | 29 | 0.172414 | 16.4018\% | 17.8190\% | 4.8 | 5.2 | 105\% | 97\% |
| 91 | 4 | 24 | 0.166667 | 18.2478\% | 19.0210\% | 4.4 | 4.6 | 91\% | 88\% |
| 92 | 2 | 19 | 0.105263 | 20.2071\% | 19.9890\% | 3.8 | 3.8 | 52\% | 53\% |
| 93 | 3 | 14 | 0.214286 | 21.8540\% | 21.4685\% | 3.1 | 3.0 | 98\% | 100\% |
| 94 | 2 | 12 | 0.166667 | 23.6978\% | 23.3145\% | 2.8 | 2.8 | 70\% | 71\% |
| 95 | 3 | 6 | 0.500000 | 25.9388\% | 25.3558\% | 1.6 | 1.5 | 193\% | 197\% |
| 96 | 1 | 6 | 0.166667 | 26.7546\% | 26.4242\% | 1.6 | 1.6 | 62\% | 63\% |
| 97 | 1 | 4 | 0.250000 | 26.7910\% | 27.4104\% | 1.1 | 1.1 | 93\% | 91\% |
| 98 | 0 | 3 | 0.000000 | 29.0491\% | 30.4682\% | 0.9 | 0.9 | 0\% | 0\% |
| 99 | 3 | 4 | 0.750000 | 31.0460\% | 33.1974\% | 1.2 | 1.3 | 242\% | 226\% |
| Subtotal | 791 | 20,673 |  |  |  | 806.7 | 741.4 | 98\% | 107\% |
| 100 or more | 2 | 5 | 0.400000 | 32.4810\% | 39.6587\% | 1.6 | 2.0 | 123\% | 101\% |
| Total | 793 | 20,678 |  |  |  | 808.3 | 743.4 | 98\% | 107\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN

|  | TABLE 2A GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected $(7) /(3)$ | Proposed (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 1 | 418 | 0.002392 | 1.5658\% | 0.7087\% | 6.5 | 3.0 | 15\% | 34\% |
| 45-49 | 13 | 1,191 | 0.010915 | 1.8134\% | 1.2934\% | 21.6 | 15.4 | 60\% | 84\% |
| 50-54 | 49 | 2,108 | 0.023245 | 2.3147\% | 1.7694\% | 48.8 | 37.3 | 100\% | 131\% |
| 55-59 | 104 | 3,069 | 0.033887 | 2.9215\% | 2.1824\% | 89.7 | 67.0 | 116\% | 155\% |
| 60-64 | 106 | 3,394 | 0.031232 | 3.4354\% | 2.7364\% | 116.6 | 92.9 | 91\% | 114\% |
| 65-69 | 115 | 2,551 | 0.045080 | 4.0528\% | 3.5021\% | 103.4 | 89.3 | 111\% | 129\% |
| 70-74 | 77 | 1,687 | 0.045643 | 4.7356\% | 4.7204\% | 79.9 | 79.6 | 96\% | 97\% |
| 75-79 | 77 | 1,161 | 0.066322 | 6.7113\% | 6.6841\% | 77.9 | 77.6 | 99\% | 99\% |
| 80-84 | 74 | 795 | 0.093082 | 10.1031\% | 9.6734\% | 80.3 | 76.9 | 92\% | 96\% |
| 85-89 | 59 | 370 | 0.159459 | 14.0254\% | 13.9272\% | 51.9 | 51.5 | 114\% | 114\% |
| 90-94 | 14 | 81 | 0.172840 | 19.3659\% | 20.1412\% | 15.7 | 16.3 | 89\% | 86\% |
| 95-99 | 5 | 16 | 0.312500 | 29.3318\% | 29.2092\% | 4.7 | 4.7 | 107\% | 107\% |
| 100+ | 1 | 3 | 0.333333 | 37.1685\% | 41.8491\% | 1.1 | 1.3 | 90\% | 80\% |
| Total | 695 | 16,844 |  |  |  | 698.1 | 612.8 | 100\% | 113\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT MORTALITY EXPERIENCE OF DISABILITY RETIREES WOMEN

|  | TABLE 2B GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 2 | 161 | 0.012422 | 1.6023\% | 1.2402\% | 2.6 | 2.0 | 78\% | 100\% |
| 45-49 | 4 | 382 | 0.010471 | 1.7838\% | 1.8206\% | 6.8 | 7.0 | 59\% | 58\% |
| 50-54 | 8 | 586 | 0.013652 | 1.8450\% | 2.3155\% | 10.8 | 13.6 | 74\% | 59\% |
| 55-59 | 12 | 777 | 0.015444 | 2.0727\% | 2.7871\% | 16.1 | 21.7 | 75\% | 55\% |
| 60-64 | 24 | 740 | 0.032432 | 2.5639\% | $3.2259 \%$ | 19.0 | 23.9 | 126\% | 101\% |
| 65-69 | 8 | 499 | 0.016032 | 3.2062\% | 3.6889\% | 16.0 | 18.4 | 50\% | 43\% |
| 70-74 | 13 | 331 | 0.039275 | 3.6923\% | 4.4029\% | 12.2 | 14.6 | 106\% | 89\% |
| 75-79 | 6 | 181 | 0.033149 | 4.7282\% | 5.7103\% | 8.6 | 10.3 | 70\% | 58\% |
| 80-84 | 9 | 104 | 0.086538 | 7.2857\% | 7.9967\% | 7.6 | 8.3 | 119\% | 108\% |
| 85-89 | 6 | 47 | 0.127660 | 11.0830\% | 11.5329\% | 5.2 | 5.4 | 115\% | 111\% |
| 90-94 | 2 | 17 | 0.117647 | 18.7776\% | 17.7615\% | 3.2 | 3.0 | 63\% | 66\% |
| 95-99 | 3 | 7 | 0.428571 | 23.6209\% | 25.3097\% | 1.7 | 1.8 | 181\% | 169\% |
| 100+ | 1 | 2 | 0.500000 | 25.4498\% | 36.3732\% | 0.5 | 0.7 | 196\% | 137\% |
| Total | 98 | 3,834 |  |  |  | 110.2 | 130.6 | 89\% | 75\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN AND WOMEN

| Age | TABLE 2C GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 3 | 579 | 0.005181 | 1.5759\% | 0.8565\% | 9.1 | 5.0 | 33\% | 60\% |
| 45-49 | 17 | 1,573 | 0.010807 | 1.8062\% | 1.4215\% | 28.4 | 22.4 | 60\% | 76\% |
| 50-54 | 57 | 2,694 | 0.021158 | 2.2125\% | 1.8882\% | 59.6 | 50.9 | 96\% | 112\% |
| 55-59 | 116 | 3,846 | 0.030161 | 2.7500\% | 2.3046\% | 105.8 | 88.6 | 110\% | 131\% |
| 60-64 | 130 | 4,134 | 0.031447 | 3.2794\% | 2.8240\% | 135.6 | 116.7 | 96\% | 111\% |
| 65-69 | 123 | 3,050 | 0.040328 | 3.9143\% | 3.5326\% | 119.4 | 107.7 | 103\% | 114\% |
| 70-74 | 90 | 2,018 | 0.044599 | 4.5645\% | 4.6683\% | 92.1 | 94.2 | 98\% | 96\% |
| 75-79 | 83 | 1,342 | 0.061848 | 6.4438\% | 6.5527\% | 86.5 | 87.9 | 96\% | 94\% |
| 80-84 | 83 | 899 | 0.092325 | 9.7772\% | 9.4794\% | 87.9 | 85.2 | 94\% | 97\% |
| 85-89 | 65 | 417 | 0.155875 | 13.6937\% | 13.6573\% | 57.1 | 57.0 | 114\% | 114\% |
| 90-94 | 16 | 98 | 0.163265 | 19.2639\% | 19.7284\% | 18.9 | 19.3 | 85\% | 83\% |
| 95-99 | 8 | 23 | 0.347826 | 27.5937\% | 28.0224\% | 6.3 | 6.4 | 126\% | 124\% |
| 100+ | 2 | 5 | 0.400000 | 32.4810\% | 39.6587\% | 1.6 | 2.0 | 123\% | 101\% |
| Total | 793 | 20,678 |  |  |  | 808.3 | 743.4 | 98\% | 107\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN AND WOMEN

| Plan <br> Year <br> Ending <br> June 30, | TABLE 2D <br> Life Years Exposed | Actual <br> Deaths | Expected Deaths | 10-YEAR PERIOD ENDING 6/30/2013 $\qquad$ <br> Mortality Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / <br> Expected | $\begin{aligned} & \hline \text { Actual } \\ & \text { (3) } /(2) \\ & \hline \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 1,931 | 76 | 59.5 | 128\% | 3.9358\% | 3.0832\% |
| 2005 | 1,999 | 82 | 62.2 | 132\% | 4.1021\% | 3.1109\% |
| 2006 | 1,997 | 86 | 62.5 | 138\% | 4.3065\% | 3.1289\% |
| 2007 | 2,048 | 83 | 64.5 | 129\% | 4.0527\% | 3.1489\% |
| 2008 | 2,088 | 66 | 65.6 | 101\% | 3.1609\% | 3.1425\% |
| 2009 | 2,130 | 89 | 67.9 | 131\% | 4.1784\% | 3.1887\% |
| 2010 | 2,155 | 76 | 69.1 | 110\% | 3.5267\% | 3.2063\% |
| 2011 | 2,157 | 85 | 69.4 | 122\% | 3.9407\% | 3.2187\% |
| 2012 | 2,152 | 65 | 70.4 | 92\% | 3.0204\% | 3.2722\% |
| 2013 | 2,245 | 87 | 72.8 | 119\% | 3.8753\% | 3.2440\% |
| Total | 20,902 | 795 | 664.0 | 120\% | 3.8035\% | 3.1767\% |

[^4]NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT
WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS
MEN

| Service | TABLE 3A |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Withdrawals | Total <br> Exposed | Actual Rate(2) / (3) | Assumed Probability |  | Expected Withdrawals |  | Actual/Expected |  |
|  |  |  |  | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 0 | 87 | 1,981 | 0.0439 | 8.00\% | 8.00\% | 158.5 | 158.5 | 55\% | 55\% |
| 1 | 149 | 4,946 | 0.0301 | 4.00\% | 4.00\% | 197.8 | 197.8 | 75\% | 75\% |
| 2 | 123 | 5,400 | 0.0228 | 2.00\% | 2.00\% | 108.0 | 108.0 | 114\% | 114\% |
| 3 | 93 | 4,566 | 0.0204 | 1.50\% | 1.50\% | 68.5 | 68.5 | 136\% | 136\% |
| 4 | 37 | 3,430 | 0.0108 | 1.20\% | 1.20\% | 41.2 | 41.2 | 90\% | 90\% |
| 5 | 40 | 3,039 | 0.0132 | 1.00\% | 1.00\% | 30.4 | 30.4 | 132\% | 132\% |
| 6 | 46 | 3,825 | 0.0120 | 1.00\% | 1.00\% | 38.3 | 38.3 | 120\% | 120\% |
| 7 | 48 | 4,613 | 0.0104 | 1.00\% | 1.00\% | 46.1 | 46.1 | 104\% | 104\% |
| 8 | 59 | 5,863 | 0.0101 | 1.00\% | 1.00\% | 58.6 | 58.6 | 101\% | 101\% |
| 9 | 60 | 6,116 | 0.0098 | 1.00\% | 1.00\% | 61.2 | 61.2 | 98\% | 98\% |
| 10 | 60 | 5,362 | 0.0112 | 0.90\% | 0.90\% | 48.3 | 48.3 | 124\% | 124\% |
| 11 | 36 | 4,291 | 0.0084 | 0.80\% | 0.80\% | 34.3 | 34.3 | 105\% | 105\% |
| 12 | 26 | 2,963 | 0.0088 | 0.70\% | 0.70\% | 20.7 | 20.7 | 125\% | 125\% |
| 13 | 22 | 2,669 | 0.0082 | 0.60\% | 0.60\% | 16.0 | 16.0 | 137\% | 137\% |
| 14 | 25 | 2,913 | 0.0086 | 0.50\% | 0.50\% | 14.6 | 14.6 | 172\% | 172\% |
| 15 | 18 | 3,411 | 0.0053 | 0.50\% | 0.50\% | 17.1 | 17.1 | 106\% | 106\% |
| 16 | 23 | 3,599 | 0.0064 | 0.50\% | 0.50\% | 18.0 | 18.0 | 128\% | 128\% |
| 17 | 21 | 3,701 | 0.0057 | 0.50\% | 0.50\% | 18.5 | 18.5 | 113\% | 113\% |
| 18 | 23 | 3,883 | 0.0059 | 0.50\% | 0.50\% | 19.4 | 19.4 | 118\% | 118\% |
| 19 | 27 | 4,322 | 0.0062 | 0.50\% | 0.50\% | 21.6 | 21.6 | 125\% | 125\% |
| 20 | 20 | 4,454 | 0.0045 | 0.50\% | 0.50\% | 22.3 | 22.3 | 90\% | 90\% |
| 21 | 11 | 4,154 | 0.0026 | 0.50\% | 0.50\% | 20.8 | 20.8 | 53\% | 53\% |
| 22 | 15 | 4,031 | 0.0037 | 0.50\% | 0.50\% | 20.2 | 20.2 | 74\% | 74\% |
| 23 | 22 | 3,425 | 0.0064 | 0.50\% | 0.50\% | 17.1 | 17.1 | 128\% | 128\% |
| 24 | 8 | 1,991 | 0.0040 | 0.50\% | 0.50\% | 10.0 | 10.0 | 80\% | 80\% |
| 25 | 7 | 1,867 | 0.0037 | 0.50\% | 0.50\% | 9.3 | 9.3 | 75\% | 75\% |
| 26 | 11 | 1,632 | 0.0067 | 0.50\% | 0.50\% | 8.2 | 8.2 | 135\% | 135\% |
| 27 | 11 | 1,385 | 0.0079 | 0.50\% | 0.50\% | 6.9 | 6.9 | 159\% | 159\% |
| 28 | 6 | 1,106 | 0.0054 | 0.50\% | 0.50\% | 5.5 | 5.5 | 108\% | 108\% |
| 29 | 9 | 731 | 0.0123 | 0.50\% | 0.50\% | 3.7 | 3.7 | 246\% | 246\% |
| 30 | 3 | 373 | 0.0080 | 0.50\% | 0.50\% | 1.9 | 1.9 | 161\% | 161\% |
| Subtotal | 1,146 | 106,042 | 0.0108 |  |  | 1,162.8 | 1,162.8 | 99\% | 99\% |
| 31 or more | 1 | 163 | 0.0061 | 0.50\% | 0.50\% | 0.8 | 0.8 | 123\% | 123\% |
| Total | 1,147 | 106,205 | 0.0108 |  |  | 1,163.6 | 1,163.6 | 99\% | 99\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT

WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS women

| Service | TABLE 3B |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Withdrawals | Total Exposed | Actual Rate <br> (2) / (3) | Assumed Probability |  | Expected Withdrawals |  | Actual/Expected |  |
|  |  |  |  | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | Proposed $(3) \times(6)$ | Expected $\text { (2) } /(7)$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 0 | 24 | 282 | 0.0851 | 8.00\% | 8.00\% | 22.6 | 22.6 | 106\% | 106\% |
| 1 | 50 | 1,085 | 0.0461 | 4.00\% | 4.00\% | 43.4 | 43.4 | 115\% | 115\% |
| 2 | 43 | 1,158 | 0.0371 | 2.00\% | 2.00\% | 23.2 | 23.2 | 186\% | 186\% |
| 3 | 36 | 969 | 0.0372 | 1.50\% | 1.50\% | 14.5 | 14.5 | 248\% | 248\% |
| 4 | 26 | 766 | 0.0339 | 1.20\% | 1.20\% | 9.2 | 9.2 | 283\% | 283\% |
| 5 | 11 | 596 | 0.0185 | 1.00\% | 1.00\% | 6.0 | 6.0 | 185\% | 185\% |
| 6 | 8 | 700 | 0.0114 | 1.00\% | 1.00\% | 7.0 | 7.0 | 114\% | 114\% |
| 7 | 18 | 830 | 0.0217 | 1.00\% | 1.00\% | 8.3 | 8.3 | 217\% | 217\% |
| 8 | 26 | 1,101 | 0.0236 | 1.00\% | 1.00\% | 11.0 | 11.0 | 236\% | 236\% |
| 9 | 17 | 1,134 | 0.0150 | 1.00\% | 1.00\% | 11.3 | 11.3 | 150\% | 150\% |
| 10 | 27 | 1,053 | 0.0256 | 0.90\% | 0.90\% | 9.5 | 9.5 | 285\% | 285\% |
| 11 | 11 | 881 | 0.0125 | 0.80\% | 0.80\% | 7.0 | 7.0 | 156\% | 156\% |
| 12 | 8 | 590 | 0.0136 | 0.70\% | 0.70\% | 4.1 | 4.1 | 194\% | 194\% |
| 13 | 4 | 560 | 0.0071 | 0.60\% | 0.60\% | 3.4 | 3.4 | 119\% | 119\% |
| 14 | 8 | 582 | 0.0137 | 0.50\% | 0.50\% | 2.9 | 2.9 | 275\% | 275\% |
| 15 | 6 | 691 | 0.0087 | 0.50\% | 0.50\% | 3.5 | 3.5 | 174\% | 174\% |
| 16 | 9 | 710 | 0.0127 | 0.50\% | 0.50\% | 3.6 | 3.6 | 254\% | 254\% |
| 17 | 3 | 698 | 0.0043 | 0.50\% | 0.50\% | 3.5 | 3.5 | 86\% | 86\% |
| 18 | 8 | 763 | 0.0105 | 0.50\% | 0.50\% | 3.8 | 3.8 | 210\% | 210\% |
| 19 | 9 | 840 | 0.0107 | 0.50\% | 0.50\% | 4.2 | 4.2 | 214\% | 214\% |
| 20 | 5 | 880 | 0.0057 | 0.50\% | 0.50\% | 4.4 | 4.4 | 114\% | 114\% |
| 21 | 5 | 821 | 0.0061 | 0.50\% | 0.50\% | 4.1 | 4.1 | 122\% | 122\% |
| 22 | 4 | 760 | 0.0053 | 0.50\% | 0.50\% | 3.8 | 3.8 | 105\% | 105\% |
| 23 | 2 | 587 | 0.0034 | 0.50\% | 0.50\% | 2.9 | 2.9 | 68\% | 68\% |
| 24 | 2 | 303 | 0.0066 | 0.50\% | 0.50\% | 1.5 | 1.5 | 132\% | 132\% |
| 25 | 2 | 228 | 0.0088 | 0.50\% | 0.50\% | 1.1 | 1.1 | 175\% | 175\% |
| 26 | 1 | 156 | 0.0064 | 0.50\% | 0.50\% | 0.8 | 0.8 | 128\% | 128\% |
| 27 | 0 | 89 | 0.0000 | 0.50\% | 0.50\% | 0.4 | 0.4 | 0\% | 0\% |
| 28 | 0 | 55 | 0.0000 | 0.50\% | 0.50\% | 0.3 | 0.3 | 0\% | 0\% |
| 29 | 1 | 43 | 0.0233 | 0.50\% | 0.50\% | 0.2 | 0.2 | 465\% | 465\% |
| 30 | 0 | 22 | 0.0000 | 0.50\% | 0.50\% | 0.1 | 0.1 | 0\% | 0\% |
| Total | 374 | 19,933 | 0.0188 |  |  | 221.6 | 221.6 | 169\% | 169\% |
| 31 or more | 2 | 31 | 0.0645 | 0.50\% | 0.50\% | 0.2 | 0.2 | 1290\% | 1290\% |
| Total | 376 | 19,964 | 0.0188 |  |  | 221.8 | 221.8 | 170\% | 170\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT
WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS
MEN AND WOMEN


NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT
WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS
MEN

| Service | TABLE 3A |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Withdrawals | Total Exposed | Actual Rate$(2) /(3)$ | Assumed Probability |  | Expected Withdrawals |  | Actual/Expected |  |
|  |  |  |  | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 0 | 276 | 4,001 | 0.0690 | 8.00\% | 8.00\% | 320.1 | 320.1 | 86\% | 86\% |
| 1 | 276 | 8,392 | 0.0329 | 4.00\% | 4.00\% | 335.7 | 335.7 | 82\% | 82\% |
| 2 | 211 | 9,602 | 0.0220 | 2.00\% | 2.00\% | 192.0 | 192.0 | 110\% | 110\% |
| 3 | 176 | 9,803 | 0.0180 | 1.50\% | 1.50\% | 147.0 | 147.0 | 120\% | 120\% |
| 4 | 137 | 9,989 | 0.0137 | 1.20\% | 1.20\% | 119.9 | 119.9 | 114\% | 114\% |
| 5 | 152 | 10,076 | 0.0151 | 1.00\% | 1.00\% | 100.8 | 100.8 | 151\% | 151\% |
| 6 | 162 | 9,886 | 0.0164 | 1.00\% | 1.00\% | 98.9 | 98.9 | 164\% | 164\% |
| 7 | 122 | 9,638 | 0.0127 | 1.00\% | 1.00\% | 96.4 | 96.4 | 127\% | 127\% |
| 8 | 103 | 9,180 | 0.0112 | 1.00\% | 1.00\% | 91.8 | 91.8 | 112\% | 112\% |
| 9 | 100 | 9,182 | 0.0109 | 1.00\% | 1.00\% | 91.8 | 91.8 | 109\% | 109\% |
| 10 | 100 | 8,614 | 0.0116 | 0.90\% | 0.90\% | 77.5 | 77.5 | 129\% | 129\% |
| 11 | 67 | 8,158 | 0.0082 | 0.80\% | 0.80\% | 65.3 | 65.3 | 103\% | 103\% |
| 12 | 83 | 7,154 | 0.0116 | 0.70\% | 0.70\% | 50.1 | 50.1 | 166\% | 166\% |
| 13 | 68 | 6,872 | 0.0099 | 0.60\% | 0.60\% | 41.2 | 41.2 | 165\% | 165\% |
| 14 | 62 | 7,286 | 0.0085 | 0.50\% | 0.50\% | 36.4 | 36.4 | 170\% | 170\% |
| 15 | 61 | 8,309 | 0.0073 | 0.50\% | 0.50\% | 41.5 | 41.5 | 147\% | 147\% |
| 16 | 67 | 8,825 | 0.0076 | 0.50\% | 0.50\% | 44.1 | 44.1 | 152\% | 152\% |
| 17 | 51 | 8,600 | 0.0059 | 0.50\% | 0.50\% | 43.0 | 43.0 | 119\% | 119\% |
| 18 | 52 | 8,684 | 0.0060 | 0.50\% | 0.50\% | 43.4 | 43.4 | 120\% | 120\% |
| 19 | 52 | 8,392 | 0.0062 | 0.50\% | 0.50\% | 42.0 | 42.0 | 124\% | 124\% |
| 20 | 45 | 8,218 | 0.0055 | 0.50\% | 0.50\% | 41.1 | 41.1 | 110\% | 110\% |
| 21 | 37 | 8,046 | 0.0046 | 0.50\% | 0.50\% | 40.2 | 40.2 | 92\% | 92\% |
| 22 | 35 | 7,769 | 0.0045 | 0.50\% | 0.50\% | 38.8 | 38.8 | 90\% | 90\% |
| 23 | 35 | 7,003 | 0.0050 | 0.50\% | 0.50\% | 35.0 | 35.0 | 100\% | 100\% |
| 24 | 18 | 4,149 | 0.0043 | 0.50\% | 0.50\% | 20.7 | 20.7 | 87\% | 87\% |
| 25 | 28 | 3,556 | 0.0079 | 0.50\% | 0.50\% | 17.8 | 17.8 | 157\% | 157\% |
| 26 | 20 | 2,752 | 0.0073 | 0.50\% | 0.50\% | 13.8 | 13.8 | 145\% | 145\% |
| 27 | 16 | 2,006 | 0.0080 | 0.50\% | 0.50\% | 10.0 | 10.0 | 160\% | 160\% |
| 28 | 8 | 1,382 | 0.0058 | 0.50\% | 0.50\% | 6.9 | 6.9 | 116\% | 116\% |
| 29 | 10 | 813 | 0.0123 | 0.50\% | 0.50\% | 4.1 | 4.1 | 246\% | 246\% |
| 30 | 3 | 385 | 0.0078 | 0.50\% | 0.50\% | 1.9 | 1.9 | 156\% | 156\% |
| Subtotal | 2,633 | 216,722 | 0.0121 |  |  | 2,309.3 | 2,309.3 | 114\% | 114\% |
| 31 or more | 1 | 183 | 0.0055 | 0.50\% | 0.50\% | 0.9 | 0.9 | 109\% | 109\% |
| Total | 2,634 | 216,905 | 0.0121 |  |  | 2,310.2 | 2,310.2 | 114\% | 114\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT

WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS women

| Service | TABLE 3B |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Withdrawals | Total Exposed | Actual Rate$(2) /(3)$ | Assumed Probability |  | Expected Withdrawals |  | Actual/Expected |  |
|  |  |  |  | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | Proposed $\text { (3) } \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 0 | 79 | 792 | 0.0997 | 8.00\% | 8.00\% | 63.4 | 63.4 | 125\% | 125\% |
| 1 | 84 | 1,785 | 0.0471 | 4.00\% | 4.00\% | 71.4 | 71.4 | 118\% | 118\% |
| 2 | 61 | 1,925 | 0.0317 | 2.00\% | 2.00\% | 38.5 | 38.5 | 158\% | 158\% |
| 3 | 48 | 1,922 | 0.0250 | 1.50\% | 1.50\% | 28.8 | 28.8 | 166\% | 166\% |
| 4 | 59 | 2,026 | 0.0291 | 1.20\% | 1.20\% | 24.3 | 24.3 | 243\% | 243\% |
| 5 | 38 | 1,908 | 0.0199 | 1.00\% | 1.00\% | 19.1 | 19.1 | 199\% | 199\% |
| 6 | 36 | 1,948 | 0.0185 | 1.00\% | 1.00\% | 19.5 | 19.5 | 185\% | 185\% |
| 7 | 36 | 1,878 | 0.0192 | 1.00\% | 1.00\% | 18.8 | 18.8 | 192\% | 192\% |
| 8 | 39 | 1,785 | 0.0218 | 1.00\% | 1.00\% | 17.9 | 17.9 | 218\% | 218\% |
| 9 | 26 | 1,772 | 0.0147 | 1.00\% | 1.00\% | 17.7 | 17.7 | 147\% | 147\% |
| 10 | 35 | 1,688 | 0.0207 | 0.90\% | 0.90\% | 15.2 | 15.2 | 230\% | 230\% |
| 11 | 18 | 1,649 | 0.0109 | 0.80\% | 0.80\% | 13.2 | 13.2 | 136\% | 136\% |
| 12 | 15 | 1,394 | 0.0108 | 0.70\% | 0.70\% | 9.8 | 9.8 | 154\% | 154\% |
| 13 | 12 | 1,357 | 0.0088 | 0.60\% | 0.60\% | 8.1 | 8.1 | 147\% | 147\% |
| 14 | 14 | 1,464 | 0.0096 | 0.50\% | 0.50\% | 7.3 | 7.3 | 191\% | 191\% |
| 15 | 16 | 1,706 | 0.0094 | 0.50\% | 0.50\% | 8.5 | 8.5 | 188\% | 188\% |
| 16 | 25 | 1,799 | 0.0139 | 0.50\% | 0.50\% | 9.0 | 9.0 | 278\% | 278\% |
| 17 | 13 | 1,713 | 0.0076 | 0.50\% | 0.50\% | 8.6 | 8.6 | 152\% | 152\% |
| 18 | 14 | 1,681 | 0.0083 | 0.50\% | 0.50\% | 8.4 | 8.4 | 167\% | 167\% |
| 19 | 17 | 1,551 | 0.0110 | 0.50\% | 0.50\% | 7.8 | 7.8 | 219\% | 219\% |
| 20 | 10 | 1,496 | 0.0067 | 0.50\% | 0.50\% | 7.5 | 7.5 | 134\% | 134\% |
| 21 | 14 | 1,345 | 0.0104 | 0.50\% | 0.50\% | 6.7 | 6.7 | 208\% | 208\% |
| 22 | 8 | 1,170 | 0.0068 | 0.50\% | 0.50\% | 5.9 | 5.9 | 137\% | 137\% |
| 23 | 4 | 904 | 0.0044 | 0.50\% | 0.50\% | 4.5 | 4.5 | 88\% | 88\% |
| 24 | 2 | 481 | 0.0042 | 0.50\% | 0.50\% | 2.4 | 2.4 | 83\% | 83\% |
| 25 | 4 | 362 | 0.0110 | 0.50\% | 0.50\% | 1.8 | 1.8 | 221\% | 221\% |
| 26 | 3 | 236 | 0.0127 | 0.50\% | 0.50\% | 1.2 | 1.2 | 254\% | 254\% |
| 27 | 0 | 137 | 0.0000 | 0.50\% | 0.50\% | 0.7 | 0.7 | 0\% | 0\% |
| 28 | 1 | 79 | 0.0127 | 0.50\% | 0.50\% | 0.4 | 0.4 | 253\% | 253\% |
| 29 | 2 | 53 | 0.0377 | 0.50\% | 0.50\% | 0.3 | 0.3 | 755\% | 755\% |
| 30 | 0 | 28 | 0.0000 | 0.50\% | 0.50\% | 0.1 | 0.1 | 0\% | 0\% |
| Total | 733 | 40,034 | 0.0183 |  |  | 446.6 | 446.6 | 164\% | 164\% |
| 31 or more | 2 | 31 | 0.0645 | 0.50\% | 0.50\% | 0.2 | 0.2 | 1290\% | 1290\% |
| Total | 735 | 40,065 | 0.0183 |  |  | 446.8 | 446.8 | 165\% | 165\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT
WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS
MEN AND WOMEN

| Service | TABLE 3C |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Withdrawals | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } /(\mathbf{3}) \\ & \hline \end{aligned}$ | Assumed Probability |  | Expected Withdrawals |  | Actual/Expected |  |
|  |  |  |  | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ (3) \times(6) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ (2) /(\mathbf{8}) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 0 | 355 | 4,793 | 0.0741 | 8.00\% | 8.00\% | 383.4 | 383.4 | 93\% | 93\% |
| 1 | 360 | 10,177 | 0.0354 | 4.00\% | 4.00\% | 407.1 | 407.1 | 88\% | 88\% |
| 2 | 272 | 11,527 | 0.0236 | 2.00\% | 2.00\% | 230.5 | 230.5 | 118\% | 118\% |
| 3 | 224 | 11,725 | 0.0191 | 1.50\% | 1.50\% | 175.9 | 175.9 | 127\% | 127\% |
| 4 | 196 | 12,015 | 0.0163 | 1.20\% | 1.20\% | 144.2 | 144.2 | 136\% | 136\% |
| 5 | 190 | 11,984 | 0.0159 | 1.00\% | 1.00\% | 119.8 | 119.8 | 159\% | 159\% |
| 6 | 198 | 11,834 | 0.0167 | 1.00\% | 1.00\% | 118.3 | 118.3 | 167\% | 167\% |
| 7 | 158 | 11,516 | 0.0137 | 1.00\% | 1.00\% | 115.2 | 115.2 | 137\% | 137\% |
| 8 | 142 | 10,965 | 0.0130 | 1.00\% | 1.00\% | 109.7 | 109.7 | 130\% | 130\% |
| 9 | 126 | 10,954 | 0.0115 | 1.00\% | 1.00\% | 109.5 | 109.5 | 115\% | 115\% |
| 10 | 135 | 10,302 | 0.0131 | 0.90\% | 0.90\% | 92.7 | 92.7 | 146\% | 146\% |
| 11 | 85 | 9,807 | 0.0087 | 0.80\% | 0.80\% | 78.5 | 78.5 | 108\% | 108\% |
| 12 | 98 | 8,548 | 0.0115 | 0.70\% | 0.70\% | 59.8 | 59.8 | 164\% | 164\% |
| 13 | 80 | 8,229 | 0.0097 | 0.60\% | 0.60\% | 49.4 | 49.4 | 162\% | 162\% |
| 14 | 76 | 8,750 | 0.0087 | 0.50\% | 0.50\% | 43.8 | 43.8 | 174\% | 174\% |
| 15 | 77 | 10,015 | 0.0077 | 0.50\% | 0.50\% | 50.1 | 50.1 | 154\% | 154\% |
| 16 | 92 | 10,624 | 0.0087 | 0.50\% | 0.50\% | 53.1 | 53.1 | 173\% | 173\% |
| 17 | 64 | 10,313 | 0.0062 | 0.50\% | 0.50\% | 51.6 | 51.6 | 124\% | 124\% |
| 18 | 66 | 10,365 | 0.0064 | 0.50\% | 0.50\% | 51.8 | 51.8 | 127\% | 127\% |
| 19 | 69 | 9,943 | 0.0069 | 0.50\% | 0.50\% | 49.7 | 49.7 | 139\% | 139\% |
| 20 | 55 | 9,714 | 0.0057 | 0.50\% | 0.50\% | 48.6 | 48.6 | 113\% | 113\% |
| 21 | 51 | 9,391 | 0.0054 | 0.50\% | 0.50\% | 47.0 | 47.0 | 109\% | 109\% |
| 22 | 43 | 8,939 | 0.0048 | 0.50\% | 0.50\% | 44.7 | 44.7 | 96\% | 96\% |
| 23 | 39 | 7,907 | 0.0049 | 0.50\% | 0.50\% | 39.5 | 39.5 | 99\% | 99\% |
| 24 | 20 | 4,630 | 0.0043 | 0.50\% | 0.50\% | 23.2 | 23.2 | 86\% | 86\% |
| 25 | 32 | 3,918 | 0.0082 | 0.50\% | 0.50\% | 19.6 | 19.6 | 163\% | 163\% |
| 26 | 23 | 2,988 | 0.0077 | 0.50\% | 0.50\% | 14.9 | 14.9 | 154\% | 154\% |
| 27 | 16 | 2,143 | 0.0075 | 0.50\% | 0.50\% | 10.7 | 10.7 | 149\% | 149\% |
| 28 | 9 | 1,461 | 0.0062 | 0.50\% | 0.50\% | 7.3 | 7.3 | 123\% | 123\% |
| 29 | 12 | 866 | 0.0139 | 0.50\% | 0.50\% | 4.3 | 4.3 | 277\% | 277\% |
| 30 | 3 | 413 | 0.0073 | 0.50\% | 0.50\% | 2.1 | 2.1 | 145\% | 145\% |
| Total | 3,366 | 256,756 | 0.0131 |  |  | 2,755.9 | 2,755.9 | 122\% | 122\% |
| 31 or more | 3 | 214 | 0.0140 | 0.50\% | 0.50\% | 1.1 | 1.1 | 280\% | 280\% |
| Total | 3,369 | 256,970 | 0.0131 |  |  | 2,757.0 | 2,757.0 | 122\% | 122\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT
WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS
MEN AND WOMEN

| Plan <br> Year | TABLE 3D |  | 10-YEAR PERIOD ENDING 6/30/2013$\qquad$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending <br> June 30, | Life Years Exposed | Actual <br> Withdrawals | Expected Withdrawals | Actual / <br> Expected | Actual <br> (3) / (2) | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 33,567 | 464 | 402.1 | 115\% | 1.38\% | 1.20\% |
| 2005 | 32,901 | 432 | 370.2 | 117\% | 1.31\% | 1.13\% |
| 2006 | 32,151 | 448 | 360.6 | 124\% | 1.39\% | 1.12\% |
| 2007 | 32,202 | 503 | 397.2 | 127\% | 1.56\% | 1.23\% |
| 2008 | 32,181 | 386 | 421.6 | 92\% | 1.20\% | 1.31\% |
| 2009 | 32,700 | 379 | 437.0 | 87\% | 1.16\% | 1.34\% |
| 2010 | 31,316 | 367 | 361.5 | 102\% | 1.17\% | 1.15\% |
| 2011 | 29,947 | 390 | 307.6 | 127\% | 1.30\% | 1.03\% |
| 2012 | 28,696 | 84 | 295.4 | 28\% | 0.29\% | 1.03\% |
| 2013 | 27,990 | 238 | 302.2 | 79\% | 0.85\% | 1.08\% |
| Total | 313,651 | 3,691 | 3,655.4 | 101\% | 1.18\% | 1.17\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY TOTAL - MEN AND WOMEN

|  | TABLE 4A |  |  | Assumed | ability | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \begin{array}{l} \text { (2) } /(3) \\ \hline \end{array} \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | $\begin{gathered} \text { Proposed } \\ (3) \times(6) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | $\begin{aligned} & \text { Proposed } \\ & (2) /(8) \\ & \hline \end{aligned}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 1 | 1 | 1.0000 | 25.00\% | 20.00\% | 0.3 | 0.2 | 400\% | 500\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 463 | 2,115 | 0.2189 | 36.77\% | 31.77\% | 777.8 | 672.0 | 60\% | 69\% |
| 56 | 204 | 459 | 0.4444 | 36.47\% | 31.47\% | 167.4 | 144.5 | 122\% | 141\% |
| 57 | 54 | 289 | 0.1869 | 36.37\% | 31.37\% | 105.1 | 90.7 | 51\% | 60\% |
| 58 | 63 | 283 | 0.2226 | 35.71\% | 30.71\% | 101.1 | 86.9 | 62\% | 72\% |
| 59 | 56 | 254 | 0.2205 | 34.57\% | 29.57\% | 87.8 | 75.1 | 64\% | 75\% |
| 60 | 69 | 275 | 0.2509 | 35.05\% | 30.05\% | 96.4 | 82.7 | 72\% | 83\% |
| 61 | 72 | 244 | 0.2951 | 40.00\% | 35.00\% | 97.6 | 85.4 | 74\% | 84\% |
| 62 | 265 | 2,064 | 0.1284 | 50.82\% | 39.59\% | 1,049.0 | 817.1 | 25\% | 32\% |
| 63 | 117 | 162 | 0.7222 | 40.00\% | 39.32\% | 64.8 | 63.7 | 181\% | 184\% |
| 64 | 2 | 31 | 0.0645 | 40.00\% | 39.84\% | 12.4 | 12.4 | 16\% | 16\% |
| 65 | 1 | 19 | 0.0526 | 50.00\% | 50.00\% | 9.5 | 9.5 | 11\% | 11\% |
| 66 | 0 | 10 | 0.0000 | 40.00\% | 39.50\% | 4.0 | 4.0 | 0\% | 0\% |
| 67 | 2 | 12 | 0.1667 | 40.00\% | 40.00\% | 4.8 | 4.8 | 42\% | 42\% |
| 68 | 0 | 8 | 0.0000 | 40.00\% | 40.00\% | 3.2 | 3.2 | 0\% | 0\% |
| 69 | 0 | 4 | 0.0000 | 40.00\% | 40.00\% | 1.6 | 1.6 | 0\% | 0\% |
| 70 | 0 | 3 | 0.0000 | 100.00\% | 100.00\% | 3.0 | 3.0 | 0\% | 0\% |
| Subtotal | 1,369 | 6,233 |  |  |  | 2,585.7 | 2,156.6 | 53\% | 63\% |
| Other | 0 | 10 | 0.0000 | 100.00\% | 100.00\% | 10.0 | 10.0 | 0\% | 0\% |
| Total | 1,369 | 6,243 |  |  |  | 2,595.7 | 2,166.6 | 53\% | 63\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY

MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 4B |  |  | Assumed Probability $\quad \begin{gathered}\text { 4-YEAR PERIOD ENDING 6/30/2013 } \\ \text { Expected Retirements }\end{gathered}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \begin{array}{c} (2) /(3) \\ \hline \end{array} \end{aligned}$ | Expected | Proposed | $\begin{aligned} & \text { Expected } \\ & \text { (3) x (5) } \\ & \hline \end{aligned}$ | Proposed $(3) \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 367 | 1,660 | 0.2211 | 40.00\% | 35.00\% | 664.0 | 581.0 | 55\% | 63\% |
| 56 | 164 | 351 | 0.4672 | 40.00\% | 35.00\% | 140.4 | 122.9 | 117\% | 133\% |
| 57 | 44 | 219 | 0.2009 | 40.00\% | 35.00\% | 87.6 | 76.7 | 50\% | 57\% |
| 58 | 49 | 202 | 0.2426 | 40.00\% | 35.00\% | 80.8 | 70.7 | 61\% | 69\% |
| 59 | 44 | 162 | 0.2716 | 40.00\% | 35.00\% | 64.8 | 56.7 | 68\% | 78\% |
| 60 | 45 | 139 | 0.3237 | 40.00\% | 35.00\% | 55.6 | 48.7 | 81\% | 92\% |
| 61 | 43 | 110 | 0.3909 | 40.00\% | 35.00\% | 44.0 | 38.5 | 98\% | 112\% |
| 62 | 45 | 170 | 0.2647 | 60.00\% | 35.00\% | 102.0 | 59.5 | 44\% | 76\% |
| 63 | 22 | 22 | 1.0000 | 40.00\% | 35.00\% | 8.8 | 7.7 | 250\% | 286\% |
| 64 | 1 | 1 | 1.0000 | 40.00\% | 35.00\% | 0.4 | 0.4 | 250\% | 286\% |
| 65 | 0 | 0 | N/A | 60.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 1 | 0.0000 | 40.00\% | 35.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 824 | 3,037 |  |  |  | 1,248.8 | 1,063.0 | 66\% | 78\% |
| Other | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 824 | 3,037 |  |  |  | 1,248.8 | 1,063.0 | 66\% | 78\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY

MEN AND WOMEN - MANDATED RETIREMENT BENEFIT

| Age | TABLE 4C |  |  | Assumed Probability $\begin{gathered}\text { 4-YEAR PERIOD ENDING 6/30/2013 } \\ \text { Expected Retirements }\end{gathered}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Retirements | Total Exposed | $\begin{gathered} \text { Actual Rate } \\ (2) /(3) \\ \hline \end{gathered}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 25.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 25.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 25.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 25.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 25.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 25.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 25.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 25.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 25.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 25.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 25.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 25.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 25.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 1 | 1 | 1.0000 | 25.00\% | 20.00\% | 0.3 | 0.2 | 400\% | 500\% |
| 54 | 0 | 0 | N/A | 25.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 96 | 455 | 0.2110 | 25.00\% | 20.00\% | 113.8 | 91.0 | 84\% | 105\% |
| 56 | 40 | 108 | 0.3704 | 25.00\% | 20.00\% | 27.0 | 21.6 | 148\% | 185\% |
| 57 | 10 | 70 | 0.1429 | 25.00\% | 20.00\% | 17.5 | 14.0 | 57\% | 71\% |
| 58 | 14 | 81 | 0.1728 | 25.00\% | 20.00\% | 20.3 | 16.2 | 69\% | 86\% |
| 59 | 12 | 92 | 0.1304 | 25.00\% | 20.00\% | 23.0 | 18.4 | 52\% | 65\% |
| 60 | 24 | 136 | 0.1765 | 30.00\% | 25.00\% | 40.8 | 34.0 | 59\% | 71\% |
| 61 | 29 | 134 | 0.2164 | 40.00\% | 35.00\% | 53.6 | 46.9 | 54\% | 62\% |
| 62 | 220 | 1,894 | 0.1162 | 50.00\% | 40.00\% | 947.0 | 757.6 | 23\% | 29\% |
| 63 | 95 | 140 | 0.6786 | 40.00\% | 40.00\% | 56.0 | 56.0 | 170\% | 170\% |
| 64 | 1 | 30 | 0.0333 | 40.00\% | 40.00\% | 12.0 | 12.0 | 8\% | 8\% |
| 65 | 1 | 19 | 0.0526 | 50.00\% | 50.00\% | 9.5 | 9.5 | 11\% | 11\% |
| 66 | 0 | 9 | 0.0000 | 40.00\% | 40.00\% | 3.6 | 3.6 | 0\% | 0\% |
| 67 | 2 | 12 | 0.1667 | 40.00\% | 40.00\% | 4.8 | 4.8 | 42\% | 42\% |
| 68 | 0 | 8 | 0.0000 | 40.00\% | 40.00\% | 3.2 | 3.2 | 0\% | 0\% |
| 69 | 0 | 4 | 0.0000 | 40.00\% | 40.00\% | 1.6 | 1.6 | 0\% | 0\% |
| 70 | 0 | 3 | 0.0000 | 100.00\% | 100.00\% | 3.0 | 3.0 | 0\% | 0\% |
| Subtotal | 545 | 3,196 |  |  |  | 1,336.9 | 1,093.6 | 41\% | 50\% |
| Other | 0 | 10 | 0.0000 | 100.00\% | 100.00\% | 10.0 | 10.0 | 0\% | 0\% |
| Total | 545 | 3,206 |  |  |  | 1,346.9 | 1,103.6 | 40\% | 49\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY TOTAL - MEN AND WOMEN

|  | TABLE 4A |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ \text { (3) x (5) } \\ \hline \end{gathered}$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 1 | 1 | 1.0000 | 25.00\% | 20.00\% | 0.3 | 0.2 | 400\% | 500\% |
| 50 | 12 | 17 | 0.7059 | 25.88\% | 20.88\% | 4.4 | 3.6 | 273\% | 338\% |
| 51 | 10 | 10 | 1.0000 | 25.00\% | 20.00\% | 2.5 | 2.0 | 400\% | 500\% |
| 52 | 9 | 9 | 1.0000 | 25.00\% | 20.00\% | 2.3 | 1.8 | 400\% | 500\% |
| 53 | 8 | 8 | 1.0000 | 25.00\% | 20.00\% | 2.0 | 1.6 | 400\% | 500\% |
| 54 | 56 | 56 | 1.0000 | 31.43\% | 26.43\% | 17.6 | 14.8 | 318\% | 378\% |
| 55 | 927 | 4,117 | 0.2252 | 35.96\% | 30.96\% | 1,480.3 | 1,274.5 | 63\% | 73\% |
| 56 | 242 | 806 | 0.3002 | 36.39\% | 31.39\% | 293.3 | 253.0 | 83\% | 96\% |
| 57 | 98 | 620 | 0.1581 | 36.23\% | 31.23\% | 224.6 | 193.6 | 44\% | 51\% |
| 58 | 113 | 556 | 0.2032 | 35.41\% | 30.41\% | 196.9 | 169.1 | 57\% | 67\% |
| 59 | 91 | 501 | 0.1816 | 34.13\% | 29.13\% | 171.0 | 146.0 | 53\% | 62\% |
| 60 | 119 | 528 | 0.2254 | 34.49\% | 29.49\% | 182.1 | 155.7 | 65\% | 76\% |
| 61 | 171 | 514 | 0.3327 | 40.00\% | 35.00\% | 205.6 | 179.9 | 83\% | 95\% |
| 62 | 643 | 4,529 | 0.1420 | 50.73\% | 39.64\% | 2,297.5 | 1,795.1 | 28\% | 36\% |
| 63 | 120 | 195 | 0.6154 | 40.00\% | 39.41\% | 78.0 | 76.9 | 154\% | 156\% |
| 64 | 4 | 65 | 0.0615 | 40.00\% | 39.92\% | 26.0 | 26.0 | 15\% | 15\% |
| 65 | 3 | 49 | 0.0612 | 50.20\% | 49.69\% | 24.6 | 24.4 | 12\% | 12\% |
| 66 | 1 | 28 | 0.0357 | 40.00\% | 39.82\% | 11.2 | 11.2 | 9\% | 9\% |
| 67 | 2 | 24 | 0.0833 | 40.00\% | 40.00\% | 9.6 | 9.6 | 21\% | 21\% |
| 68 | 3 | 20 | 0.1500 | 40.00\% | 40.00\% | 8.0 | 8.0 | 38\% | 38\% |
| 69 | 0 | 6 | 0.0000 | 40.00\% | 40.00\% | 2.4 | 2.4 | 0\% | 0\% |
| 70 | 2 | 9 | 0.2222 | 100.00\% | 100.00\% | 9.0 | 9.0 | 22\% | 22\% |
| Subtotal | 2,635 | 12,668 |  |  |  | 5,249.1 | 4,358.1 | 50\% | 60\% |
| Other | 0 | 15 | 0.0000 | 100.00\% | 100.00\% | 15.0 | 15.0 | 0\% | 0\% |
| Total | 2,635 | 12,683 |  |  |  | 5,264.1 | 4,373.1 | 50\% | 60\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY

MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 4B |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed |  | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ \text { (3) } \times(6) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 1 | 1 | 1.0000 | 40.00\% | 35.00\% | 0.4 | 0.4 | 250\% | 286\% |
| 51 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 24 | 24 | 1.0000 | 40.00\% | 35.00\% | 9.6 | 8.4 | 250\% | 286\% |
| 55 | 632 | 3,007 | 0.2102 | 40.00\% | 35.00\% | 1,202.8 | 1,052.5 | 53\% | 60\% |
| 56 | 188 | 612 | 0.3072 | 40.00\% | 35.00\% | 244.8 | 214.2 | 77\% | 88\% |
| 57 | 73 | 464 | 0.1573 | 40.00\% | 35.00\% | 185.6 | 162.4 | 39\% | 45\% |
| 58 | 69 | 386 | 0.1788 | 40.00\% | 35.00\% | 154.4 | 135.1 | 45\% | 51\% |
| 59 | 58 | 305 | 0.1902 | 40.00\% | 35.00\% | 122.0 | 106.8 | 48\% | 54\% |
| 60 | 64 | 237 | 0.2700 | 40.00\% | 35.00\% | 94.8 | 83.0 | 68\% | 77\% |
| 61 | 60 | 167 | 0.3593 | 40.00\% | 35.00\% | 66.8 | 58.5 | 90\% | 103\% |
| 62 | 70 | 330 | 0.2121 | 60.00\% | 35.00\% | 198.0 | 115.5 | 35\% | 61\% |
| 63 | 22 | 23 | 0.9565 | 40.00\% | 35.00\% | 9.2 | 8.1 | 239\% | 273\% |
| 64 | 1 | 1 | 1.0000 | 40.00\% | 35.00\% | 0.4 | 0.4 | 250\% | 286\% |
| 65 | 1 | 1 | 1.0000 | 60.00\% | 35.00\% | 0.6 | 0.4 | 167\% | 286\% |
| 66 | 0 | 1 | 0.0000 | 40.00\% | 35.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 1,263 | 5,559 |  |  |  | 2,289.8 | 1,945.7 | 55\% | 65\% |
| Other | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 1,263 | 5,559 |  |  |  | 2,289.8 | 1,945.7 | 55\% | 65\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY

MEN AND WOMEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 4C |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 25.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 25.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 25.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 25.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 25.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 25.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 25.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 25.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 25.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 1 | 1 | 1.0000 | 25.00\% | 20.00\% | 0.3 | 0.2 | 400\% | 500\% |
| 50 | 11 | 16 | 0.6875 | 25.00\% | 20.00\% | 4.0 | 3.2 | 275\% | 344\% |
| 51 | 10 | 10 | 1.0000 | 25.00\% | 20.00\% | 2.5 | 2.0 | 400\% | 500\% |
| 52 | 9 | 9 | 1.0000 | 25.00\% | 20.00\% | 2.3 | 1.8 | 400\% | 500\% |
| 53 | 8 | 8 | 1.0000 | 25.00\% | 20.00\% | 2.0 | 1.6 | 400\% | 500\% |
| 54 | 32 | 32 | 1.0000 | 25.00\% | 20.00\% | 8.0 | 6.4 | 400\% | 500\% |
| 55 | 295 | 1,110 | 0.2658 | 25.00\% | 20.00\% | 277.5 | 222.0 | 106\% | 133\% |
| 56 | 54 | 194 | 0.2784 | 25.00\% | 20.00\% | 48.5 | 38.8 | 111\% | 139\% |
| 57 | 25 | 156 | 0.1603 | 25.00\% | 20.00\% | 39.0 | 31.2 | 64\% | 80\% |
| 58 | 44 | 170 | 0.2588 | 25.00\% | 20.00\% | 42.5 | 34.0 | 104\% | 129\% |
| 59 | 33 | 196 | 0.1684 | 25.00\% | 20.00\% | 49.0 | 39.2 | 67\% | 84\% |
| 60 | 55 | 291 | 0.1890 | 30.00\% | 25.00\% | 87.3 | 72.8 | 63\% | 76\% |
| 61 | 111 | 347 | 0.3199 | 40.00\% | 35.00\% | 138.8 | 121.5 | 80\% | 91\% |
| 62 | 573 | 4,199 | 0.1365 | 50.00\% | 40.00\% | 2,099.5 | 1,679.6 | 27\% | 34\% |
| 63 | 98 | 172 | 0.5698 | 40.00\% | 40.00\% | 68.8 | 68.8 | 142\% | 142\% |
| 64 | 3 | 64 | 0.0469 | 40.00\% | 40.00\% | 25.6 | 25.6 | 12\% | 12\% |
| 65 | 2 | 48 | 0.0417 | 50.00\% | 50.00\% | 24.0 | 24.0 | 8\% | 8\% |
| 66 | 1 | 27 | 0.0370 | 40.00\% | 40.00\% | 10.8 | 10.8 | 9\% | 9\% |
| 67 | 2 | 24 | 0.0833 | 40.00\% | 40.00\% | 9.6 | 9.6 | 21\% | 21\% |
| 68 | 3 | 20 | 0.1500 | 40.00\% | 40.00\% | 8.0 | 8.0 | 38\% | 38\% |
| 69 | 0 | 6 | 0.0000 | 40.00\% | 40.00\% | 2.4 | 2.4 | 0\% | 0\% |
| 70 | 2 | 9 | 0.2222 | 100.00\% | 100.00\% | 9.0 | 9.0 | 22\% | 22\% |
| Subtotal | 1,372 | 7,109 |  |  |  | 2,959.3 | 2,412.4 | 46\% | 57\% |
| Other | 0 | 15 | 0.0000 | 100.00\% | 100.00\% | 15.0 | 15.0 | 0\% | 0\% |
| Total | 1,372 | 7,124 |  |  |  | 2,974.3 | 2,427.4 | 46\% | 57\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY <br> TOTAL - MEN AND WOMEN

|  | TABLE 5A |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2)/(3) } \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 56 | 119 | 1,346 | 0.0884 | 18.87\% | 17.74\% | 254.0 | 238.8 | 47\% | 50\% |
| 57 | 98 | 272 | 0.3603 | 18.77\% | 17.54\% | 51.1 | 47.7 | 192\% | 205\% |
| 58 | 16 | 169 | 0.0947 | 18.82\% | 17.63\% | 31.8 | 29.8 | 50\% | 54\% |
| 59 | 21 | 161 | 0.1304 | 18.57\% | 17.14\% | 29.9 | 27.6 | 70\% | 76\% |
| 60 | 24 | 155 | 0.1548 | 18.03\% | 16.06\% | 28.0 | 24.9 | 86\% | 96\% |
| 61 | 19 | 150 | 0.1267 | 20.00\% | 17.20\% | 30.0 | 25.8 | 63\% | 74\% |
| 62 | 46 | 139 | 0.3309 | 33.20\% | 30.47\% | 46.2 | 42.4 | 100\% | 109\% |
| 63 | 140 | 1,654 | 0.0846 | 29.26\% | 24.63\% | 484.0 | 407.4 | 29\% | 34\% |
| 64 | 73 | 114 | 0.6404 | 28.86\% | 28.86\% | 32.9 | 32.9 | 222\% | 222\% |
| 65 | 1 | 24 | 0.0417 | 40.00\% | 40.00\% | 9.6 | 9.6 | 10\% | 10\% |
| 66 | 0 | 18 | 0.0000 | 30.00\% | 30.00\% | 5.4 | 5.4 | 0\% | 0\% |
| 67 | 1 | 8 | 0.1250 | 30.00\% | 30.00\% | 2.4 | 2.4 | 42\% | 42\% |
| 68 | 1 | 4 | 0.2500 | 30.00\% | 30.00\% | 1.2 | 1.2 | 83\% | 83\% |
| 69 | 0 | 8 | 0.0000 | 30.00\% | 30.00\% | 2.4 | 2.4 | 0\% | 0\% |
| 70 | 1 | 4 | 0.2500 | 100.00\% | 100.00\% | 4.0 | 4.0 | 25\% | 25\% |
| Subtotal | 560 | 4,226 |  |  |  | 1,012.8 | 902.3 | 55\% | 62\% |
| Other | 2 | 12 | 0.1667 | 100.00\% | 100.00\% | 12.0 | 12.0 | 17\% | 17\% |
| Total | 562 | 4,238 |  |  |  | 1,024.8 | 914.3 | 55\% | 61\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 5B |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) / (3) } \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 56 | 103 | 1,042 | 0.0988 | 20.00\% | 20.00\% | 208.4 | 208.4 | 49\% | 49\% |
| 57 | 77 | 205 | 0.3756 | 20.00\% | 20.00\% | 41.0 | 41.0 | 188\% | 188\% |
| 58 | 15 | 129 | 0.1163 | 20.00\% | 20.00\% | 25.8 | 25.8 | 58\% | 58\% |
| 59 | 18 | 115 | 0.1565 | 20.00\% | 20.00\% | 23.0 | 23.0 | 78\% | 78\% |
| 60 | 15 | 94 | 0.1596 | 20.00\% | 20.00\% | 18.8 | 18.8 | 80\% | 80\% |
| 61 | 10 | 66 | 0.1515 | 20.00\% | 20.00\% | 13.2 | 13.2 | 76\% | 76\% |
| 62 | 23 | 63 | 0.3651 | 25.00\% | 25.00\% | 15.8 | 15.8 | 146\% | 146\% |
| 63 | 22 | 122 | 0.1803 | 20.00\% | 20.00\% | 24.4 | 24.4 | 90\% | 90\% |
| 64 | 13 | 13 | 1.0000 | 20.00\% | 20.00\% | 2.6 | 2.6 | 500\% | 500\% |
| 65 | 0 | 0 | N/A | 25.00\% | 25.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 296 | 1,849 |  |  |  | 373.0 | 373.0 | 79\% | 79\% |
| Other | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 296 | 1,849 |  |  |  | 373.0 | 373.0 | 79\% | 79\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 5C |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 15.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 15.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 15.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 15.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 15.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 15.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 15.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 15.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 15.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 15.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 15.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 15.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 15.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 15.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 0 | 0 | N/A | 15.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 56 | 16 | 304 | 0.0526 | 15.00\% | 10.00\% | 45.6 | 30.4 | 35\% | 53\% |
| 57 | 21 | 67 | 0.3134 | 15.00\% | 10.00\% | 10.1 | 6.7 | 209\% | 313\% |
| 58 | 1 | 40 | 0.0250 | 15.00\% | 10.00\% | 6.0 | 4.0 | 17\% | 25\% |
| 59 | 3 | 46 | 0.0652 | 15.00\% | 10.00\% | 6.9 | 4.6 | 43\% | 65\% |
| 60 | 9 | 61 | 0.1475 | 15.00\% | 10.00\% | 9.2 | 6.1 | 98\% | 148\% |
| 61 | 9 | 84 | 0.1071 | 20.00\% | 15.00\% | 16.8 | 12.6 | 54\% | 71\% |
| 62 | 23 | 76 | 0.3026 | 40.00\% | 35.00\% | 30.4 | 26.6 | 76\% | 86\% |
| 63 | 118 | 1,532 | 0.0770 | 30.00\% | 25.00\% | 459.6 | 383.0 | 26\% | 31\% |
| 64 | 60 | 101 | 0.5941 | 30.00\% | 30.00\% | 30.3 | 30.3 | 198\% | 198\% |
| 65 | 1 | 24 | 0.0417 | 40.00\% | 40.00\% | 9.6 | 9.6 | 10\% | 10\% |
| 66 | 0 | 18 | 0.0000 | 30.00\% | 30.00\% | 5.4 | 5.4 | 0\% | 0\% |
| 67 | 1 | 8 | 0.1250 | 30.00\% | 30.00\% | 2.4 | 2.4 | 42\% | 42\% |
| 68 | 1 | 4 | 0.2500 | 30.00\% | 30.00\% | 1.2 | 1.2 | 83\% | 83\% |
| 69 | 0 | 8 | 0.0000 | 30.00\% | 30.00\% | 2.4 | 2.4 | 0\% | 0\% |
| 70 | 1 | 4 | 0.2500 | 100.00\% | 100.00\% | 4.0 | 4.0 | 25\% | 25\% |
| Subtotal | 264 | 2,377 |  |  |  | 639.8 | 529.3 | 41\% | 50\% |
| Other | 2 | 12 | 0.1667 | 100.00\% | 100.00\% | 12.0 | 12.0 | 17\% | 17\% |
| Total | 266 | 2,389 |  |  |  | 651.8 | 541.3 | 41\% | 49\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY

TOTAL - MEN AND WOMEN

|  | TABLE 5A |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements <br> Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) /(3) } \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ (3) \times(6) \\ \hline \end{gathered}$ | Expected $\text { (2) } /(7)$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 1 | 23 | 0.0435 | 15.00\% | 10.00\% | 3.5 | 2.3 | 29\% | 43\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 56 | 383 | 2,655 | 0.1443 | 18.54\% | 17.07\% | 492.2 | 453.3 | 78\% | 84\% |
| 57 | 150 | 555 | 0.2703 | 18.69\% | 17.39\% | 103.8 | 96.5 | 145\% | 155\% |
| 58 | 68 | 432 | 0.1574 | 18.74\% | 17.48\% | 81.0 | 75.5 | 84\% | 90\% |
| 59 | 63 | 363 | 0.1736 | 18.57\% | 17.13\% | 67.4 | 62.2 | 93\% | 101\% |
| 60 | 61 | 329 | 0.1854 | 18.07\% | 16.14\% | 59.5 | 53.1 | 103\% | 115\% |
| 61 | 60 | 332 | 0.1807 | 20.00\% | 16.97\% | 66.4 | 56.4 | 90\% | 106\% |
| 62 | 113 | 293 | 0.3857 | 35.19\% | 31.79\% | 103.1 | 93.2 | 110\% | 121\% |
| 63 | 415 | 3,528 | 0.1176 | 29.32\% | 24.66\% | 1,034.5 | 870.1 | 40\% | 48\% |
| 64 | 75 | 144 | 0.5208 | 29.10\% | 29.10\% | 41.9 | 41.9 | 179\% | 179\% |
| 65 | 2 | 60 | 0.0333 | 40.00\% | 40.00\% | 24.0 | 24.0 | 8\% | 8\% |
| 66 | 1 | 48 | 0.0208 | 30.00\% | 30.00\% | 14.4 | 14.4 | 7\% | 7\% |
| 67 | 3 | 27 | 0.1111 | 30.00\% | 30.00\% | 8.1 | 8.1 | 37\% | 37\% |
| 68 | 3 | 18 | 0.1667 | 30.00\% | 30.00\% | 5.4 | 5.4 | 56\% | 56\% |
| 69 | 3 | 15 | 0.2000 | 30.00\% | 30.00\% | 4.5 | 4.5 | 67\% | 67\% |
| 70 | 1 | 6 | 0.1667 | 100.00\% | 100.00\% | 6.0 | 6.0 | 17\% | 17\% |
| Subtotal | 1,402 | 8,828 |  |  |  | 2,115.5 | 1,866.8 | 66\% | 75\% |
| Other | 3 | 21 | 0.1429 | 100.00\% | 100.00\% | 21.0 | 21.0 | 14\% | 14\% |
| Total | 1,405 | 8,849 |  |  |  | 2,136.5 | 1,887.8 | 66\% | 74\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 5B |  |  | Assmed Probability 10-YEAR PERIOD ENDING 6/30/2013 Expected Retirements ${ }^{\text {Actual/Expected }}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total Exposed | Actual Rate (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 56 | 254 | 1,878 | 0.1353 | 20.00\% | 20.00\% | 375.6 | 375.6 | 68\% | 68\% |
| 57 | 108 | 410 | 0.2634 | 20.00\% | 20.00\% | 82.0 | 82.0 | 132\% | 132\% |
| 58 | 54 | 323 | 0.1672 | 20.00\% | 20.00\% | 64.6 | 64.6 | 84\% | 84\% |
| 59 | 50 | 259 | 0.1931 | 20.00\% | 20.00\% | 51.8 | 51.8 | 97\% | 97\% |
| 60 | 38 | 202 | 0.1881 | 20.00\% | 20.00\% | 40.4 | 40.4 | 94\% | 94\% |
| 61 | 23 | 131 | 0.1756 | 20.00\% | 20.00\% | 26.2 | 26.2 | 88\% | 88\% |
| 62 | 39 | 94 | 0.4149 | 25.00\% | 25.00\% | 23.5 | 23.5 | 166\% | 166\% |
| 63 | 51 | 239 | 0.2134 | 20.00\% | 20.00\% | 47.8 | 47.8 | 107\% | 107\% |
| 64 | 13 | 13 | 1.0000 | 20.00\% | 20.00\% | 2.6 | 2.6 | 500\% | 500\% |
| 65 | 0 | 0 | N/A | 25.00\% | 25.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 630 | 3,549 |  |  |  | 714.5 | 714.5 | 88\% | 88\% |
| Other | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 630 | 3,549 |  |  |  | 714.5 | 714.5 | 88\% | 88\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 5C |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements <br> Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) / (3) } \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $\text { (2) } /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 15.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 15.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 15.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 15.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 15.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 15.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 15.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 15.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 15.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 15.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 1 | 23 | 0.0435 | 15.00\% | 10.00\% | 3.5 | 2.3 | 29\% | 43\% |
| 52 | 0 | 0 | N/A | 15.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 15.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 15.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 0 | 0 | N/A | 15.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 56 | 129 | 777 | 0.1660 | 15.00\% | 10.00\% | 116.6 | 77.7 | 111\% | 166\% |
| 57 | 42 | 145 | 0.2897 | 15.00\% | 10.00\% | 21.8 | 14.5 | 193\% | 290\% |
| 58 | 14 | 109 | 0.1284 | 15.00\% | 10.00\% | 16.4 | 10.9 | 86\% | 128\% |
| 59 | 13 | 104 | 0.1250 | 15.00\% | 10.00\% | 15.6 | 10.4 | 83\% | 125\% |
| 60 | 23 | 127 | 0.1811 | 15.00\% | 10.00\% | 19.1 | 12.7 | 121\% | 181\% |
| 61 | 37 | 201 | 0.1841 | 20.00\% | 15.00\% | 40.2 | 30.2 | 92\% | 123\% |
| 62 | 74 | 199 | 0.3719 | 40.00\% | 35.00\% | 79.6 | 69.7 | 93\% | 106\% |
| 63 | 364 | 3,289 | 0.1107 | 30.00\% | 25.00\% | 986.7 | 822.3 | 37\% | 44\% |
| 64 | 62 | 131 | 0.4733 | 30.00\% | 30.00\% | 39.3 | 39.3 | 158\% | 158\% |
| 65 | 2 | 60 | 0.0333 | 40.00\% | 40.00\% | 24.0 | 24.0 | 8\% | 8\% |
| 66 | 1 | 48 | 0.0208 | 30.00\% | 30.00\% | 14.4 | 14.4 | 7\% | 7\% |
| 67 | 3 | 27 | 0.1111 | 30.00\% | 30.00\% | 8.1 | 8.1 | 37\% | 37\% |
| 68 | 3 | 18 | 0.1667 | 30.00\% | 30.00\% | 5.4 | 5.4 | 56\% | 56\% |
| 69 | 3 | 15 | 0.2000 | 30.00\% | 30.00\% | 4.5 | 4.5 | 67\% | 67\% |
| 70 | 1 | 6 | 0.1667 | 100.00\% | 100.00\% | 6.0 | 6.0 | 17\% | 17\% |
| Subtotal | 772 | 5,279 |  |  |  | 1,401.0 | 1,152.3 | 55\% | 67\% |
| Other | 3 | 21 | 0.1429 | 100.00\% | 100.00\% | 21.0 | 21.0 | 14\% | 14\% |
| Total | 775 | 5,300 |  |  |  | 1,422.0 | 1,173.3 | 55\% | 66\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT

RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY TOTAL - MEN AND WOMEN

| Age | TABLE 6A |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements <br> Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Retirements | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \end{gathered}$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 5 | 5 | 1.0000 | 15.00\% | 15.00\% | 0.8 | 0.8 | 667\% | 667\% |
| 56 | 11 | 13 | 0.8462 | 15.00\% | 15.00\% | 2.0 | 2.0 | 564\% | 564\% |
| 57 | 96 | 1,024 | 0.0938 | 15.00\% | 15.00\% | 153.6 | 153.6 | 63\% | 63\% |
| 58 | 134 | 1,020 | 0.1314 | 15.00\% | 15.00\% | 153.0 | 153.0 | 88\% | 88\% |
| 59 | 157 | 993 | 0.1581 | 15.00\% | 15.00\% | 149.0 | 149.0 | 105\% | 105\% |
| 60 | 144 | 895 | 0.1609 | 15.00\% | 15.00\% | 134.3 | 134.3 | 107\% | 107\% |
| 61 | 114 | 769 | 0.1482 | 16.72\% | 16.72\% | 128.6 | 128.6 | 89\% | 89\% |
| 62 | 218 | 702 | 0.3105 | 31.24\% | 31.24\% | 219.3 | 219.3 | 99\% | 99\% |
| 63 | 166 | 521 | 0.3186 | 24.88\% | 24.88\% | 129.6 | 129.6 | 128\% | 128\% |
| 64 | 177 | 1,664 | 0.1064 | 28.61\% | 28.61\% | 476.0 | 476.0 | 37\% | 37\% |
| 65 | 210 | 1,405 | 0.1495 | 38.28\% | 38.28\% | 537.9 | 537.9 | 39\% | 39\% |
| 66 | 232 | 1,075 | 0.2158 | 29.02\% | 29.02\% | 312.0 | 312.0 | 74\% | 74\% |
| 67 | 153 | 713 | 0.2146 | 29.19\% | 29.19\% | 208.1 | 208.1 | 74\% | 74\% |
| 68 | 87 | 504 | 0.1726 | 29.44\% | 29.44\% | 148.4 | 148.4 | 59\% | 59\% |
| 69 | 64 | 387 | 0.1654 | 29.41\% | 29.41\% | 113.8 | 113.8 | 56\% | 56\% |
| 70 | 66 | 330 | 0.2000 | 100.00\% | 100.00\% | 330.0 | 330.0 | 20\% | 20\% |
| Subtotal | 2,034 | 12,020 |  |  |  | 3,196.1 | 3,196.1 | 64\% | 64\% |
| Other | 193 | 956 | 0.2019 | 100.00\% | 100.00\% | 956.0 | 956.0 | 20\% | 20\% |
| Total | 2,227 | 12,976 |  |  |  | 4,152.1 | 4,152.1 | 54\% | 54\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 6B |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed <br> (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 56 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 57 | 56 | 773 | 0.0724 | 15.00\% | 15.00\% | 116.0 | 116.0 | 48\% | 48\% |
| 58 | 97 | 761 | 0.1275 | 15.00\% | 15.00\% | 114.2 | 114.2 | 85\% | 85\% |
| 59 | 115 | 730 | 0.1575 | 15.00\% | 15.00\% | 109.5 | 109.5 | 105\% | 105\% |
| 60 | 110 | 632 | 0.1741 | 15.00\% | 15.00\% | 94.8 | 94.8 | 116\% | 116\% |
| 61 | 77 | 505 | 0.1525 | 15.00\% | 15.00\% | 75.8 | 75.8 | 102\% | 102\% |
| 62 | 134 | 410 | 0.3268 | 25.00\% | 25.00\% | 102.5 | 102.5 | 131\% | 131\% |
| 63 | 101 | 267 | 0.3783 | 20.00\% | 20.00\% | 53.4 | 53.4 | 189\% | 189\% |
| 64 | 55 | 232 | 0.2371 | 20.00\% | 20.00\% | 46.4 | 46.4 | 119\% | 119\% |
| 65 | 44 | 161 | 0.2733 | 25.00\% | 25.00\% | 40.3 | 40.3 | 109\% | 109\% |
| 66 | 36 | 105 | 0.3429 | 20.00\% | 20.00\% | 21.0 | 21.0 | 171\% | 171\% |
| 67 | 26 | 58 | 0.4483 | 20.00\% | 20.00\% | 11.6 | 11.6 | 224\% | 224\% |
| 68 | 7 | 28 | 0.2500 | 20.00\% | 20.00\% | 5.6 | 5.6 | 125\% | 125\% |
| 69 | 6 | 23 | 0.2609 | 20.00\% | 20.00\% | 4.6 | 4.6 | 130\% | 130\% |
| 70 | 8 | 20 | 0.4000 | 100.00\% | 100.00\% | 20.0 | 20.0 | 40\% | 40\% |
| Subtotal | 872 | 4,705 |  |  |  | 815.5 | 815.5 | 107\% | 107\% |
| Other | 13 | 36 | 0.3611 | 100.00\% | 100.00\% | 36.0 | 36.0 | 36\% | 36\% |
| Total | 885 | 4,741 |  |  |  | 851.5 | 851.5 | 104\% | 104\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT
RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY
MEN AND WOMEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 6C |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013$\begin{aligned} & \text { Expected Retirements }\end{aligned}$Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed <br> (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 15.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 5 | 5 | 1.0000 | 15.00\% | 15.00\% | 0.8 | 0.8 | 667\% | 667\% |
| 56 | 11 | 13 | 0.8462 | 15.00\% | 15.00\% | 2.0 | 2.0 | 564\% | 564\% |
| 57 | 40 | 251 | 0.1594 | 15.00\% | 15.00\% | 37.7 | 37.7 | 106\% | 106\% |
| 58 | 37 | 259 | 0.1429 | 15.00\% | 15.00\% | 38.9 | 38.9 | 95\% | 95\% |
| 59 | 42 | 263 | 0.1597 | 15.00\% | 15.00\% | 39.5 | 39.5 | 106\% | 106\% |
| 60 | 34 | 263 | 0.1293 | 15.00\% | 15.00\% | 39.5 | 39.5 | 86\% | 86\% |
| 61 | 37 | 264 | 0.1402 | 20.00\% | 20.00\% | 52.8 | 52.8 | 70\% | 70\% |
| 62 | 84 | 292 | 0.2877 | 40.00\% | 40.00\% | 116.8 | 116.8 | 72\% | 72\% |
| 63 | 65 | 254 | 0.2559 | 30.00\% | 30.00\% | 76.2 | 76.2 | 85\% | 85\% |
| 64 | 122 | 1,432 | 0.0852 | 30.00\% | 25.00\% | 429.6 | 358.0 | 28\% | 34\% |
| 65 | 166 | 1,244 | 0.1334 | 40.00\% | 25.00\% | 497.6 | 311.0 | 33\% | 53\% |
| 66 | 196 | 970 | 0.2021 | 30.00\% | 25.00\% | 291.0 | 242.5 | 67\% | 81\% |
| 67 | 127 | 655 | 0.1939 | 30.00\% | 25.00\% | 196.5 | 163.8 | 65\% | 78\% |
| 68 | 80 | 476 | 0.1681 | 30.00\% | 25.00\% | 142.8 | 119.0 | 56\% | 67\% |
| 69 | 58 | 364 | 0.1593 | 30.00\% | 25.00\% | 109.2 | 91.0 | 53\% | 64\% |
| 70 | 58 | 310 | 0.1871 | 100.00\% | 100.00\% | 310.0 | 310.0 | 19\% | 19\% |
| Subtotal | 1,162 | 7,315 |  |  |  | 2,380.6 | 1,999.2 | 49\% | 58\% |
| Other | 180 | 920 | 0.1957 | 100.00\% | 100.00\% | 920.0 | 920.0 | 20\% | 20\% |
| Total | 1,342 | 8,235 |  |  |  | 3,300.6 | 2,919.2 | 41\% | 46\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT

RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY TOTAL - MEN AND WOMEN

|  | TABLE 6A |  |  | Assumed Probability |  | -YEAR PERIOD ENDING <br> Expected Retirements |  | Actual/Expected |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 8 | 56 | 0.1429 | 15.00\% | 0.00\% | 8.4 | 0.0 | 95\% | 0\% |
| 53 | 15 | 98 | 0.1531 | 15.00\% | 0.00\% | 14.7 | 0.0 | 102\% | 0\% |
| 54 | 27 | 135 | 0.2000 | 15.00\% | 0.00\% | 20.3 | 0.0 | 133\% | 0\% |
| 55 | 40 | 177 | 0.2260 | 15.00\% | 15.00\% | 26.6 | 26.6 | 151\% | 151\% |
| 56 | 56 | 213 | 0.2629 | 15.00\% | 15.00\% | 32.0 | 32.0 | 175\% | 175\% |
| 57 | 274 | 2,094 | 0.1309 | 15.00\% | 15.00\% | 314.1 | 314.1 | 87\% | 87\% |
| 58 | 289 | 1,997 | 0.1447 | 15.00\% | 15.00\% | 299.6 | 299.6 | 96\% | 96\% |
| 59 | 323 | 1,892 | 0.1707 | 15.00\% | 15.00\% | 283.8 | 283.8 | 114\% | 114\% |
| 60 | 299 | 1,671 | 0.1789 | 15.00\% | 15.00\% | 250.7 | 250.7 | 119\% | 119\% |
| 61 | 233 | 1,435 | 0.1624 | 17.46\% | 16.72\% | 250.5 | 239.9 | 93\% | 97\% |
| 62 | 421 | 1,297 | 0.3246 | 33.49\% | 31.24\% | 434.4 | 405.2 | 97\% | 104\% |
| 63 | 293 | 919 | 0.3188 | 26.30\% | 24.88\% | 241.7 | 228.6 | 121\% | 128\% |
| 64 | 479 | 3,401 | 0.1408 | 29.00\% | 28.61\% | 986.3 | 972.9 | 49\% | 49\% |
| 65 | 444 | 2,781 | 0.1597 | 38.75\% | 38.28\% | 1,077.6 | 1,064.6 | 41\% | 42\% |
| 66 | 511 | 2,192 | 0.2331 | 29.28\% | 29.02\% | 641.8 | 636.2 | 80\% | 80\% |
| 67 | 301 | 1,509 | 0.1995 | 29.41\% | 29.19\% | 443.8 | 440.4 | 68\% | 68\% |
| 68 | 206 | 1,118 | 0.1843 | 29.52\% | 29.44\% | 330.0 | 329.2 | 62\% | 63\% |
| 69 | 159 | 852 | 0.1866 | 29.50\% | 29.41\% | 251.3 | 250.5 | 63\% | 63\% |
| 70 | 129 | 652 | 0.1979 | 100.00\% | 100.00\% | 652.0 | 652.0 | 20\% | 20\% |
| Subtotal | 4,507 | 24,489 |  |  |  | 6,559.3 | 6,426.1 | 69\% | 70\% |
| Other | 346 | 1,713 | 0.2020 | 100.00\% | 100.00\% | 1,713.0 | 1,713.0 | 20\% | 20\% |
| Total | 4,853 | 26,202 |  |  |  | 8,272.3 | 8,139.1 | 59\% | 60\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

| Age | TABLE 6B |  |  | Assumed | bability | 10-YEAR PERIOD ENDING 6/30/2013Expected Retirements Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 56 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 57 | 125 | 1,264 | 0.0989 | 15.00\% | 15.00\% | 189.6 | 189.6 | 66\% | 66\% |
| 58 | 153 | 1,187 | 0.1289 | 15.00\% | 15.00\% | 178.1 | 178.1 | 86\% | 86\% |
| 59 | 168 | 1,092 | 0.1538 | 15.00\% | 15.00\% | 163.8 | 163.8 | 103\% | 103\% |
| 60 | 158 | 921 | 0.1716 | 15.00\% | 15.00\% | 138.2 | 138.2 | 114\% | 114\% |
| 61 | 115 | 730 | 0.1575 | 15.00\% | 15.00\% | 109.5 | 109.5 | 105\% | 105\% |
| 62 | 181 | 563 | 0.3215 | 25.00\% | 25.00\% | 140.8 | 140.8 | 129\% | 129\% |
| 63 | 129 | 340 | 0.3794 | 20.00\% | 20.00\% | 68.0 | 68.0 | 190\% | 190\% |
| 64 | 93 | 340 | 0.2735 | 20.00\% | 20.00\% | 68.0 | 68.0 | 137\% | 137\% |
| 65 | 61 | 232 | 0.2629 | 25.00\% | 25.00\% | 58.0 | 58.0 | 105\% | 105\% |
| 66 | 55 | 158 | 0.3481 | 20.00\% | 20.00\% | 31.6 | 31.6 | 174\% | 174\% |
| 67 | 34 | 89 | 0.3820 | 20.00\% | 20.00\% | 17.8 | 17.8 | 191\% | 191\% |
| 68 | 16 | 54 | 0.2963 | 20.00\% | 20.00\% | 10.8 | 10.8 | 148\% | 148\% |
| 69 | 13 | 43 | 0.3023 | 20.00\% | 20.00\% | 8.6 | 8.6 | 151\% | 151\% |
| 70 | 13 | 33 | 0.3939 | 100.00\% | 100.00\% | 33.0 | 33.0 | 39\% | 39\% |
| Subtotal | 1,314 | 7,046 |  |  |  | 1,215.7 | 1,215.7 | 108\% | 108\% |
| Other | 20 | 50 | 0.4000 | 100.00\% | 100.00\% | 50.0 | 50.0 | 40\% | 40\% |
| Total | 1,334 | 7,096 |  |  |  | 1,265.7 | 1,265.7 | 105\% | 105\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT
RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY
MEN AND WOMEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 6C |  |  | Assumed | bability | 10-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 15.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 8 | 56 | 0.1429 | 15.00\% | 15.00\% | 8.4 | 8.4 | 95\% | 95\% |
| 53 | 15 | 98 | 0.1531 | 15.00\% | 15.00\% | 14.7 | 14.7 | 102\% | 102\% |
| 54 | 27 | 135 | 0.2000 | 15.00\% | 15.00\% | 20.3 | 20.3 | 133\% | 133\% |
| 55 | 40 | 177 | 0.2260 | 15.00\% | 15.00\% | 26.6 | 26.6 | 151\% | 151\% |
| 56 | 56 | 213 | 0.2629 | 15.00\% | 15.00\% | 32.0 | 32.0 | 175\% | 175\% |
| 57 | 149 | 830 | 0.1795 | 15.00\% | 15.00\% | 124.5 | 124.5 | 120\% | 120\% |
| 58 | 136 | 810 | 0.1679 | 15.00\% | 15.00\% | 121.5 | 121.5 | 112\% | 112\% |
| 59 | 155 | 800 | 0.1938 | 15.00\% | 15.00\% | 120.0 | 120.0 | 129\% | 129\% |
| 60 | 141 | 750 | 0.1880 | 15.00\% | 15.00\% | 112.5 | 112.5 | 125\% | 125\% |
| 61 | 118 | 705 | 0.1674 | 20.00\% | 20.00\% | 141.0 | 141.0 | 84\% | 84\% |
| 62 | 240 | 734 | 0.3270 | 40.00\% | 40.00\% | 293.6 | 293.6 | 82\% | 82\% |
| 63 | 164 | 579 | 0.2832 | 30.00\% | 30.00\% | 173.7 | 173.7 | 94\% | 94\% |
| 64 | 386 | 3,061 | 0.1261 | 30.00\% | 25.00\% | 918.3 | 765.3 | 42\% | 50\% |
| 65 | 383 | 2,549 | 0.1503 | 40.00\% | 25.00\% | 1,019.6 | 637.3 | 38\% | 60\% |
| 66 | 456 | 2,034 | 0.2242 | 30.00\% | 25.00\% | 610.2 | 508.5 | 75\% | 90\% |
| 67 | 267 | 1,420 | 0.1880 | 30.00\% | 25.00\% | 426.0 | 355.0 | 63\% | 75\% |
| 68 | 190 | 1,064 | 0.1786 | 30.00\% | 25.00\% | 319.2 | 266.0 | 60\% | 71\% |
| 69 | 146 | 809 | 0.1805 | 30.00\% | 25.00\% | 242.7 | 202.3 | 60\% | 72\% |
| 70 | 116 | 619 | 0.1874 | 100.00\% | 100.00\% | 619.0 | 619.0 | 19\% | 19\% |
| Subtotal | 3,193 | 17,443 |  |  |  | 5,343.7 | 4,541.9 | 60\% | 70\% |
| Other | 326 | 1,663 | 0.1960 | 100.00\% | 100.00\% | 1,663.0 | 1,663.0 | 20\% | 20\% |
| Total | 3,519 | 19,106 |  |  |  | 7,006.7 | 6,204.9 | 50\% | 57\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT RETIREMENT EXPERIENCE OF ACTIVE MEMBERS WITH UNREDUCED SERVICE TOTAL - MEN AND WOMEN

*The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 40 .

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT

## RETIREMENT EXPERIENCE OF ACTIVE MEMBERS WITH REDUCED SERVICE <br> TOTAL - MEN AND WOMEN

|  | TABLE 7A |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 1 | 0.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 5 | 0.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 0 | 12 | 0.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 1 | 9 | 0.1111 | 2.00\% | 3.00\% | 0.2 | 0.3 | 556\% | 370\% |
| 56 | 0 | 8 | 0.0000 | 2.00\% | 3.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 57 | 0 | 8 | 0.0000 | 2.00\% | 3.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 58 | 0 | 7 | 0.0000 | 2.00\% | 3.00\% | 0.1 | 0.2 | 0\% | 0\% |
| 59 | 0 | 4 | 0.0000 | 3.00\% | 4.00\% | 0.1 | 0.2 | 0\% | 0\% |
| 60 | 0 | 4 | 0.0000 | 4.00\% | 5.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 61 | 2 | 4 | 0.5000 | 5.00\% | 6.00\% | 0.2 | 0.2 | 1000\% | 833\% |
| 62 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 3 | 62 |  |  |  | 1.1 | 1.6 | 268\% | 192\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 3 | 62 |  |  |  | 1.1 | 1.6 | 268\% | 192\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT

## RETIREMENT EXPERIENCE OF ACTIVE MEMBERS WITH REDUCED SERVICE

TOTAL - MEN AND WOMEN

| Age | TABLE 7A |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements <br> Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Retirements | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 67 | 0.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 83 | 0.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 125 | 0.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 172 | 0.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 1 | 209 | 0.0048 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 1 | 45 | 0.0222 | 2.00\% | 3.00\% | 0.9 | 1.4 | 111\% | 74\% |
| 56 | 0 | 38 | 0.0000 | 2.00\% | 3.00\% | 0.8 | 1.1 | 0\% | 0\% |
| 57 | 0 | 38 | 0.0000 | 2.00\% | 3.00\% | 0.8 | 1.1 | 0\% | 0\% |
| 58 | 0 | 44 | 0.0000 | 2.00\% | 3.00\% | 0.9 | 1.3 | 0\% | 0\% |
| 59 | 0 | 52 | 0.0000 | 3.00\% | 4.00\% | 1.6 | 2.1 | 0\% | 0\% |
| 60 | 1 | 61 | 0.0164 | 4.00\% | 5.00\% | 2.4 | 3.1 | 41\% | 33\% |
| 61 | 2 | 68 | 0.0294 | 5.00\% | 6.00\% | 3.4 | 4.1 | 59\% | 49\% |
| 62 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 5 | 1,002 |  |  |  | 10.7 | 14.2 | 47\% | 35\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 5 | 1,002 |  |  |  | 10.7 | 14.2 | 47\% | 35\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT RETIREMENT EXPERIENCE OF ACTIVE MEMBERS WITH REDUCED SERVICE TOTAL - MEN AND WOMEN

| Plan Year | TABLE 7B |  |  | 10-YEAR PER | Retirement Rate |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending <br> June 30, | Life Years Exposed | Actual Retirements | Expected Retirements | Actual / <br> Expected | $\begin{gathered} \text { Actual } \\ (3) /(2) \end{gathered}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 293 | 1 | 7.3 | 14\% | 0.34\% | 2.49\% |
| 2005 | 242 | 0 | 6.3 | 0\% | 0.00\% | 2.59\% |
| 2006 | 177 | 1 | 4.8 | 21\% | 0.56\% | 2.71\% |
| 2007 | 114 | 0 | 2.9 | 0\% | 0.00\% | 2.58\% |
| 2008 | 75 | 0 | 2.0 | 0\% | 0.00\% | 2.68\% |
| 2009 | 39 | 0 | 1.0 | 0\% | 0.00\% | 2.62\% |
| 2010 | 24 | 0 | 0.6 | 0\% | 0.00\% | 2.58\% |
| 2011 | 15 | 0 | 0.4 | 0\% | 0.00\% | 2.60\% |
| 2012 | 11 | 0 | 0.3 | 0\% | 0.00\% | 2.36\% |
| 2013 | 12 | 3 | 0.2 | 1250\% | 25.00\% | 2.00\% |
| Total | 1,002 | 5 | 25.9 | 19\% | 0.50\% | 2.58\% |

*The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 40 .

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT <br> ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS <br> MEN

| Age | TABLE 8A |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 47 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 86 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 97 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 114 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 149 | 0.00000 | 0.040\% | 0.040\% | 0.1 | 0.1 | 0\% | 0\% |
| 25 | 0 | 203 | 0.00000 | 0.040\% | 0.040\% | 0.1 | 0.1 | 0\% | 0\% |
| 26 | 0 | 290 | 0.00000 | 0.040\% | 0.040\% | 0.1 | 0.1 | 0\% | 0\% |
| 27 | 1 | 375 | 0.00267 | 0.040\% | 0.040\% | 0.2 | 0.2 | 667\% | 667\% |
| 28 | 0 | 501 | 0.00000 | 0.040\% | 0.040\% | 0.2 | 0.2 | 0\% | 0\% |
| 29 | 1 | 609 | 0.00164 | 0.040\% | 0.040\% | 0.2 | 0.2 | 411\% | 411\% |
| 30 | 0 | 751 | 0.00000 | 0.040\% | 0.040\% | 0.3 | 0.3 | 0\% | 0\% |
| 31 | 0 | 878 | 0.00000 | 0.042\% | 0.042\% | 0.4 | 0.4 | 0\% | 0\% |
| 32 | 0 | 968 | 0.00000 | 0.044\% | 0.044\% | 0.4 | 0.4 | 0\% | 0\% |
| 33 | 1 | 1,142 | 0.00088 | 0.046\% | 0.046\% | 0.5 | 0.5 | 190\% | 190\% |
| 34 | 1 | 1,310 | 0.00076 | 0.048\% | 0.048\% | 0.6 | 0.6 | 159\% | 159\% |
| 35 | 0 | 1,440 | 0.00000 | 0.050\% | 0.050\% | 0.7 | 0.7 | 0\% | 0\% |
| 36 | 1 | 1,574 | 0.00064 | 0.052\% | 0.052\% | 0.8 | 0.8 | 122\% | 122\% |
| 37 | 0 | 1,709 | 0.00000 | 0.054\% | 0.054\% | 0.9 | 0.9 | 0\% | 0\% |
| 38 | 2 | 1,925 | 0.00104 | 0.056\% | 0.056\% | 1.1 | 1.1 | 186\% | 186\% |
| 39 | 2 | 2,156 | 0.00093 | 0.058\% | 0.058\% | 1.3 | 1.3 | 160\% | 160\% |
| 40 | 3 | 2,488 | 0.00121 | 0.060\% | 0.060\% | 1.5 | 1.5 | 201\% | 201\% |
| 41 | 3 | 2,821 | 0.00106 | 0.070\% | 0.070\% | 2.0 | 2.0 | 152\% | 152\% |
| 42 | 0 | 3,090 | 0.00000 | 0.080\% | 0.080\% | 2.5 | 2.5 | 0\% | 0\% |
| 43 | 1 | 3,438 | 0.00029 | 0.090\% | 0.090\% | 3.1 | 3.1 | 32\% | 32\% |
| 44 | 2 | 3,799 | 0.00053 | 0.100\% | 0.100\% | 3.8 | 3.8 | 53\% | 53\% |
| 45 | 3 | 4,210 | 0.00071 | 0.110\% | 0.110\% | 4.6 | 4.6 | 65\% | 65\% |
| 46 | 3 | 4,552 | 0.00066 | 0.120\% | 0.120\% | 5.5 | 5.5 | 55\% | 55\% |
| 47 | 5 | 4,920 | 0.00102 | 0.130\% | 0.130\% | 6.4 | 6.4 | 78\% | 78\% |
| 48 | 6 | 5,089 | 0.00118 | 0.140\% | 0.140\% | 7.1 | 7.1 | 84\% | 84\% |
| 49 | 7 | 5,203 | 0.00135 | 0.150\% | 0.150\% | 7.8 | 7.8 | 90\% | 90\% |
| 50 | 8 | 5,197 | 0.00154 | 0.160\% | 0.160\% | 8.3 | 8.3 | 96\% | 96\% |
| 51 | 9 | 5,140 | 0.00175 | 0.170\% | 0.170\% | 8.7 | 8.7 | 103\% | 103\% |
| 52 | 10 | 5,071 | 0.00197 | 0.180\% | 0.180\% | 9.1 | 9.1 | 110\% | 110\% |
| 53 | 11 | 5,131 | 0.00214 | 0.190\% | 0.190\% | 9.7 | 9.7 | 113\% | 113\% |
| 54 | 10 | 5,171 | 0.00193 | 0.200\% | 0.200\% | 10.3 | 10.3 | 97\% | 97\% |
| 55 | 12 | 5,029 | 0.00239 | 0.210\% | 0.210\% | 10.6 | 10.6 | 114\% | 114\% |
| 56 | 12 | 4,517 | 0.00266 | 0.220\% | 0.220\% | 9.9 | 9.9 | 121\% | 121\% |
| 57 | 8 | 4,062 | 0.00197 | 0.230\% | 0.230\% | 9.3 | 9.3 | 86\% | 86\% |
| 58 | 10 | 3,766 | 0.00266 | 0.240\% | 0.240\% | 9.0 | 9.0 | 111\% | 111\% |
| 59 | 11 | 3,539 | 0.00311 | 0.250\% | 0.250\% | 8.8 | 8.8 | 124\% | 124\% |
| 60 | 12 | 3,305 | 0.00363 | 0.260\% | 0.260\% | 8.6 | 8.6 | 140\% | 140\% |
| 61 | 5 | 2,977 | 0.00168 | 0.270\% | 0.270\% | 8.0 | 8.0 | 62\% | 62\% |
| 62 | 11 | 2,696 | 0.00408 | 0.280\% | 0.280\% | 7.5 | 7.5 | 146\% | 146\% |
| 63 | 7 | 2,176 | 0.00322 | 0.290\% | 0.290\% | 6.3 | 6.3 | 111\% | 111\% |
| 64 | 6 | 1,701 | 0.00353 | 0.300\% | 0.300\% | 5.1 | 5.1 | 118\% | 118\% |
| 65 | 5 | 1,350 | 0.00370 | 0.320\% | 0.320\% | 4.3 | 4.3 | 116\% | 116\% |
| 66 | 4 | 1,019 | 0.00393 | 0.350\% | 0.350\% | 3.6 | 3.6 | 112\% | 112\% |
| 67 | 2 | 684 | 0.00292 | 0.390\% | 0.390\% | 2.7 | 2.7 | 75\% | 75\% |
| 68 | 6 | 473 | 0.01268 | 0.440\% | 0.440\% | 2.1 | 2.1 | 288\% | 288\% |
| 69 | 4 | 370 | 0.01081 | 0.500\% | 0.500\% | 1.9 | 1.9 | 216\% | 216\% |
| 70 | 2 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 71 | 2 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| Other | 2 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Total | 211 | 119,308 |  |  |  | 196.4 | 196.4 | 107\% | 107\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

| Age | TABLE 8B |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 5 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 6 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 9 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 12 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 18 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 45 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 26 | 0 | 54 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 70 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 28 | 0 | 109 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 29 | 0 | 128 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 30 | 0 | 164 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 31 | 0 | 227 | 0.00000 | 0.021\% | 0.021\% | 0.0 | 0.0 | 0\% | 0\% |
| 32 | 0 | 261 | 0.00000 | 0.022\% | 0.022\% | 0.1 | 0.1 | 0\% | 0\% |
| 33 | 0 | 291 | 0.00000 | 0.023\% | 0.023\% | 0.1 | 0.1 | 0\% | 0\% |
| 34 | 0 | 315 | 0.00000 | 0.024\% | 0.024\% | 0.1 | 0.1 | 0\% | 0\% |
| 35 | 0 | 332 | 0.00000 | 0.025\% | 0.025\% | 0.1 | 0.1 | 0\% | 0\% |
| 36 | 0 | 373 | 0.00000 | 0.026\% | 0.026\% | 0.1 | 0.1 | 0\% | 0\% |
| 37 | 0 | 412 | 0.00000 | 0.027\% | 0.027\% | 0.1 | 0.1 | 0\% | 0\% |
| 38 | 0 | 497 | 0.00000 | 0.028\% | 0.028\% | 0.1 | 0.1 | 0\% | 0\% |
| 39 | 2 | 583 | 0.00343 | 0.029\% | 0.029\% | 0.2 | 0.2 | 1183\% | 1183\% |
| 40 | 0 | 627 | 0.00000 | 0.030\% | 0.030\% | 0.2 | 0.2 | 0\% | 0\% |
| 41 | 0 | 700 | 0.00000 | 0.035\% | 0.035\% | 0.2 | 0.2 | 0\% | 0\% |
| 42 | 2 | 729 | 0.00274 | 0.040\% | 0.040\% | 0.3 | 0.3 | 686\% | 686\% |
| 43 | 1 | 742 | 0.00135 | 0.045\% | 0.045\% | 0.3 | 0.3 | 299\% | 299\% |
| 44 | 0 | 798 | 0.00000 | 0.050\% | 0.050\% | 0.4 | 0.4 | 0\% | 0\% |
| 45 | 2 | 847 | 0.00236 | 0.055\% | 0.055\% | 0.5 | 0.5 | 429\% | 429\% |
| 46 | 1 | 934 | 0.00107 | 0.060\% | 0.060\% | 0.6 | 0.6 | 178\% | 178\% |
| 47 | 0 | 999 | 0.00000 | 0.065\% | 0.065\% | 0.6 | 0.6 | 0\% | 0\% |
| 48 | 0 | 981 | 0.00000 | 0.070\% | 0.070\% | 0.7 | 0.7 | 0\% | 0\% |
| 49 | 2 | 956 | 0.00209 | 0.075\% | 0.075\% | 0.7 | 0.7 | 279\% | 279\% |
| 50 | 0 | 892 | 0.00000 | 0.080\% | 0.080\% | 0.7 | 0.7 | 0\% | 0\% |
| 51 | 0 | 823 | 0.00000 | 0.085\% | 0.085\% | 0.7 | 0.7 | 0\% | 0\% |
| 52 | 0 | 815 | 0.00000 | 0.090\% | 0.090\% | 0.7 | 0.7 | 0\% | 0\% |
| 53 | 3 | 762 | 0.00394 | 0.095\% | 0.095\% | 0.7 | 0.7 | 414\% | 414\% |
| 54 | 3 | 722 | 0.00416 | 0.100\% | 0.100\% | 0.7 | 0.7 | 416\% | 416\% |
| 55 | 1 | 666 | 0.00150 | 0.105\% | 0.105\% | 0.7 | 0.7 | 143\% | 143\% |
| 56 | 0 | 589 | 0.00000 | 0.110\% | 0.110\% | 0.6 | 0.6 | 0\% | 0\% |
| 57 | 1 | 547 | 0.00183 | 0.115\% | 0.115\% | 0.6 | 0.6 | 159\% | 159\% |
| 58 | 1 | 500 | 0.00200 | 0.120\% | 0.120\% | 0.6 | 0.6 | 167\% | 167\% |
| 59 | 2 | 435 | 0.00460 | 0.125\% | 0.125\% | 0.5 | 0.5 | 368\% | 368\% |
| 60 | 1 | 383 | 0.00261 | 0.130\% | 0.130\% | 0.5 | 0.5 | 201\% | 201\% |
| 61 | 1 | 330 | 0.00303 | 0.135\% | 0.135\% | 0.4 | 0.4 | 224\% | 224\% |
| 62 | 0 | 292 | 0.00000 | 0.140\% | 0.140\% | 0.4 | 0.4 | 0\% | 0\% |
| 63 | 0 | 230 | 0.00000 | 0.145\% | 0.145\% | 0.3 | 0.3 | 0\% | 0\% |
| 64 | 0 | 164 | 0.00000 | 0.150\% | 0.150\% | 0.2 | 0.2 | 0\% | 0\% |
| 65 | 0 | 136 | 0.00000 | 0.160\% | 0.160\% | 0.2 | 0.2 | 0\% | 0\% |
| 66 | 0 | 111 | 0.00000 | 0.175\% | 0.175\% | 0.2 | 0.2 | 0\% | 0\% |
| 67 | 0 | 65 | 0.00000 | 0.195\% | 0.195\% | 0.1 | 0.1 | 0\% | 0\% |
| 68 | 0 | 50 | 0.00000 | 0.220\% | 0.220\% | 0.1 | 0.1 | 0\% | 0\% |
| 69 | 1 | 33 | 0.03030 | 0.250\% | 0.250\% | 0.1 | 0.1 | 1212\% | 1212\% |
| 70 | 1 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Total | 25 | 20,769 |  |  |  | 14.9 | 14.9 | 168\% | 168\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Age | TABLE 8C |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 52 | 0.00000 | 0.038\% | 0.038\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 92 | 0.00000 | 0.039\% | 0.039\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 106 | 0.00000 | 0.038\% | 0.038\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 126 | 0.00000 | 0.038\% | 0.038\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 167 | 0.00000 | 0.038\% | 0.038\% | 0.1 | 0.1 | 0\% | 0\% |
| 25 | 0 | 248 | 0.00000 | 0.036\% | 0.036\% | 0.1 | 0.1 | 0\% | 0\% |
| 26 | 0 | 344 | 0.00000 | 0.037\% | 0.037\% | 0.1 | 0.1 | 0\% | 0\% |
| 27 | 1 | 445 | 0.00225 | 0.037\% | 0.037\% | 0.2 | 0.2 | 610\% | 610\% |
| 28 | 0 | 610 | 0.00000 | 0.036\% | 0.036\% | 0.2 | 0.2 | 0\% | 0\% |
| 29 | 1 | 737 | 0.00136 | 0.037\% | 0.037\% | 0.3 | 0.3 | 371\% | 371\% |
| 30 | 0 | 915 | 0.00000 | 0.036\% | 0.036\% | 0.3 | 0.3 | 0\% | 0\% |
| 31 | 0 | 1,105 | 0.00000 | 0.038\% | 0.038\% | 0.4 | 0.4 | 0\% | 0\% |
| 32 | 0 | 1,229 | 0.00000 | 0.039\% | 0.039\% | 0.5 | 0.5 | 0\% | 0\% |
| 33 | 1 | 1,433 | 0.00070 | 0.041\% | 0.041\% | 0.6 | 0.6 | 169\% | 169\% |
| 34 | 1 | 1,625 | 0.00062 | 0.043\% | 0.043\% | 0.7 | 0.7 | 142\% | 142\% |
| 35 | 0 | 1,772 | 0.00000 | 0.045\% | 0.045\% | 0.8 | 0.8 | 0\% | 0\% |
| 36 | 1 | 1,947 | 0.00051 | 0.047\% | 0.047\% | 0.9 | 0.9 | 109\% | 109\% |
| 37 | 0 | 2,121 | 0.00000 | 0.049\% | 0.049\% | 1.0 | 1.0 | 0\% | 0\% |
| 38 | 2 | 2,422 | 0.00083 | 0.050\% | 0.050\% | 1.2 | 1.2 | 164\% | 164\% |
| 39 | 4 | 2,739 | 0.00146 | 0.052\% | 0.052\% | 1.4 | 1.4 | 282\% | 282\% |
| 40 | 3 | 3,115 | 0.00096 | 0.054\% | 0.054\% | 1.7 | 1.7 | 178\% | 178\% |
| 41 | 3 | 3,521 | 0.00085 | 0.063\% | 0.063\% | 2.2 | 2.2 | 135\% | 135\% |
| 42 | 2 | 3,819 | 0.00052 | 0.072\% | 0.072\% | 2.8 | 2.8 | 72\% | 72\% |
| 43 | 2 | 4,180 | 0.00048 | 0.082\% | 0.082\% | 3.4 | 3.4 | 58\% | 58\% |
| 44 | 2 | 4,597 | 0.00044 | 0.091\% | 0.091\% | 4.2 | 4.2 | 48\% | 48\% |
| 45 | 5 | 5,057 | 0.00099 | 0.101\% | 0.101\% | 5.1 | 5.1 | 98\% | 98\% |
| 46 | 4 | 5,486 | 0.00073 | 0.110\% | 0.110\% | 6.0 | 6.0 | 66\% | 66\% |
| 47 | 5 | 5,919 | 0.00084 | 0.119\% | 0.119\% | 7.0 | 7.0 | 71\% | 71\% |
| 48 | 6 | 6,070 | 0.00099 | 0.129\% | 0.129\% | 7.8 | 7.8 | 77\% | 77\% |
| 49 | 9 | 6,159 | 0.00146 | 0.138\% | 0.138\% | 8.5 | 8.5 | 106\% | 106\% |
| 50 | 8 | 6,089 | 0.00131 | 0.148\% | 0.148\% | 9.0 | 9.0 | 89\% | 89\% |
| 51 | 9 | 5,963 | 0.00151 | 0.158\% | 0.158\% | 9.4 | 9.4 | 95\% | 95\% |
| 52 | 10 | 5,886 | 0.00170 | 0.168\% | 0.168\% | 9.9 | 9.9 | 101\% | 101\% |
| 53 | 14 | 5,893 | 0.00238 | 0.178\% | 0.178\% | 10.5 | 10.5 | 134\% | 134\% |
| 54 | 13 | 5,893 | 0.00221 | 0.188\% | 0.188\% | 11.1 | 11.1 | 117\% | 117\% |
| 55 | 13 | 5,695 | 0.00228 | 0.198\% | 0.198\% | 11.3 | 11.3 | 115\% | 115\% |
| 56 | 12 | 5,106 | 0.00235 | 0.207\% | 0.207\% | 10.6 | 10.6 | 113\% | 113\% |
| 57 | 9 | 4,609 | 0.00195 | 0.216\% | 0.216\% | 10.0 | 10.0 | 90\% | 90\% |
| 58 | 11 | 4,266 | 0.00258 | 0.226\% | 0.226\% | 9.6 | 9.6 | 114\% | 114\% |
| 59 | 13 | 3,974 | 0.00327 | 0.236\% | 0.236\% | 9.4 | 9.4 | 138\% | 138\% |
| 60 | 13 | 3,688 | 0.00352 | 0.246\% | 0.246\% | 9.1 | 9.1 | 143\% | 143\% |
| 61 | 6 | 3,307 | 0.00181 | 0.257\% | 0.257\% | 8.5 | 8.5 | 71\% | 71\% |
| 62 | 11 | 2,988 | 0.00368 | 0.266\% | 0.266\% | 8.0 | 8.0 | 138\% | 138\% |
| 63 | 7 | 2,406 | 0.00291 | 0.276\% | 0.276\% | 6.6 | 6.6 | 105\% | 105\% |
| 64 | 6 | 1,865 | 0.00322 | 0.287\% | 0.287\% | 5.3 | 5.3 | 112\% | 112\% |
| 65 | 5 | 1,486 | 0.00336 | 0.305\% | 0.305\% | 4.5 | 4.5 | 110\% | 110\% |
| 66 | 4 | 1,130 | 0.00354 | 0.333\% | 0.333\% | 3.8 | 3.8 | 106\% | 106\% |
| 67 | 2 | 749 | 0.00267 | 0.373\% | 0.373\% | 2.8 | 2.8 | 72\% | 72\% |
| 68 | 6 | 523 | 0.01147 | 0.419\% | 0.419\% | 2.2 | 2.2 | 274\% | 274\% |
| 69 | 5 | 403 | 0.01241 | 0.480\% | 0.480\% | 1.9 | 1.9 | 259\% | 259\% |
| 70 | 3 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 71 | 2 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Other | 2 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Total | 236 | 140,077 |  |  |  | 211.2 | 211.2 | 112\% | 112\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT

ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS
MEN

|  | TABLE 8A GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total Exposed | Actual Rate $(2) /(3)$ | Expected $(7) /(3)$ | Proposed (8) / (3) | Expected | Proposed | Expected (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 493 | 0.00000 | 0.040\% | 0.040\% | 0.2 | 0.2 | 0\% | 0\% |
| 25-29 | 2 | 1,978 | 0.00101 | 0.040\% | 0.040\% | 0.8 | 0.8 | 253\% | 253\% |
| 30-34 | 2 | 5,049 | 0.00040 | 0.045\% | 0.045\% | 2.2 | 2.2 | 89\% | 89\% |
| 35-39 | 5 | 8,804 | 0.00057 | 0.054\% | 0.054\% | 4.8 | 4.8 | 104\% | 104\% |
| 40-44 | 9 | 15,636 | 0.00058 | 0.082\% | 0.082\% | 12.8 | 12.8 | 70\% | 70\% |
| 45-49 | 24 | 23,974 | 0.00100 | 0.131\% | 0.131\% | 31.4 | 31.4 | 76\% | 76\% |
| 50-54 | 48 | 25,710 | 0.00187 | 0.180\% | 0.180\% | 46.3 | 46.3 | 104\% | 104\% |
| 55-59 | 53 | 20,913 | 0.00253 | 0.228\% | 0.228\% | 47.7 | 47.7 | 111\% | 111\% |
| 60-64 | 41 | 12,855 | 0.00319 | 0.277\% | 0.277\% | 35.6 | 35.6 | 115\% | 115\% |
| 65-69 | 21 | 3,896 | 0.00539 | 0.372\% | 0.372\% | 14.5 | 14.5 | 145\% | 145\% |
| 70-74 | 4 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 2 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 211 | 119,308 |  |  |  | 196.4 | 196.4 | 107\% | 107\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT

ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS
WOMEN

| Age | TABLE 8B GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed (8) / (3) | Expected | Proposed | Expected $(2) /(7)$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 50 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 25-29 | 0 | 406 | 0.00000 | 0.020\% | 0.020\% | 0.1 | 0.1 | 0\% | 0\% |
| 30-34 | 0 | 1,258 | 0.00000 | 0.022\% | 0.022\% | 0.3 | 0.3 | 0\% | 0\% |
| 35-39 | 2 | 2,197 | 0.00091 | 0.027\% | 0.027\% | 0.6 | 0.6 | 334\% | 334\% |
| 40-44 | 3 | 3,596 | 0.00083 | 0.041\% | 0.041\% | 1.5 | 1.5 | 206\% | 206\% |
| 45-49 | 5 | 4,717 | 0.00106 | 0.065\% | 0.065\% | 3.1 | 3.1 | 162\% | 162\% |
| 50-54 | 6 | 4,014 | 0.00149 | 0.090\% | 0.090\% | 3.6 | 3.6 | 167\% | 167\% |
| 55-59 | 5 | 2,737 | 0.00183 | 0.114\% | 0.114\% | 3.1 | 3.1 | 160\% | 160\% |
| 60-64 | 2 | 1,399 | 0.00143 | 0.138\% | 0.138\% | 1.9 | 1.9 | 104\% | 104\% |
| 65-69 | 1 | 395 | 0.00253 | 0.185\% | 0.185\% | 0.7 | 0.7 | 137\% | 137\% |
| 70-74 | 1 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 25 | 20,769 |  |  |  | 14.9 | 14.9 | 168\% | 168\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT
ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Age | TABLE 8C GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual Deaths | Total <br> Exposed | Actual Rate (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 543 | 0.00000 | 0.038\% | 0.038\% | 0.2 | 0.2 | 0\% | 0\% |
| 25-29 | 2 | 2,384 | 0.00084 | 0.037\% | 0.037\% | 0.9 | 0.9 | 229\% | 229\% |
| 30-34 | 2 | 6,307 | 0.00032 | 0.040\% | 0.040\% | 2.5 | 2.5 | 79\% | 79\% |
| 35-39 | 7 | 11,001 | 0.00064 | 0.049\% | 0.049\% | 5.4 | 5.4 | 130\% | 130\% |
| 40-44 | 12 | 19,232 | 0.00062 | 0.074\% | 0.074\% | 14.3 | 14.3 | 84\% | 84\% |
| 45-49 | 29 | 28,691 | 0.00101 | 0.120\% | 0.120\% | 34.5 | 34.5 | 84\% | 84\% |
| 50-54 | 54 | 29,724 | 0.00182 | 0.168\% | 0.168\% | 49.9 | 49.9 | 108\% | 108\% |
| 55-59 | 58 | 23,650 | 0.00245 | 0.215\% | 0.215\% | 50.8 | 50.8 | 114\% | 114\% |
| 60-64 | 43 | 14,254 | 0.00302 | 0.263\% | 0.263\% | 37.5 | 37.5 | 115\% | 115\% |
| 65-69 | 22 | 4,291 | 0.00513 | 0.355\% | 0.355\% | 15.2 | 15.2 | 145\% | 145\% |
| 70-74 | 5 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 2 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 236 | 140,077 |  |  |  | 211.2 | 211.2 | 112\% | 112\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT <br> ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS <br> MEN

| Age | TABLE 8A |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 109 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 188 | 0.00000 | 0.040\% | 0.040\% | 0.1 | 0.1 | 0\% | 0\% |
| 22 | 0 | 240 | 0.00000 | 0.040\% | 0.040\% | 0.1 | 0.1 | 0\% | 0\% |
| 23 | 0 | 313 | 0.00000 | 0.040\% | 0.040\% | 0.1 | 0.1 | 0\% | 0\% |
| 24 | 0 | 402 | 0.00000 | 0.040\% | 0.040\% | 0.2 | 0.2 | 0\% | 0\% |
| 25 | 0 | 568 | 0.00000 | 0.040\% | 0.040\% | 0.2 | 0.2 | 0\% | 0\% |
| 26 | 0 | 804 | 0.00000 | 0.040\% | 0.040\% | 0.3 | 0.3 | 0\% | 0\% |
| 27 | 1 | 1,091 | 0.00092 | 0.040\% | 0.040\% | 0.4 | 0.4 | 229\% | 229\% |
| 28 | 0 | 1,433 | 0.00000 | 0.040\% | 0.040\% | 0.6 | 0.6 | 0\% | 0\% |
| 29 | 1 | 1,756 | 0.00057 | 0.040\% | 0.040\% | 0.7 | 0.7 | 142\% | 142\% |
| 30 | 1 | 2,094 | 0.00048 | 0.040\% | 0.040\% | 0.8 | 0.8 | 119\% | 119\% |
| 31 | 1 | 2,453 | 0.00041 | 0.042\% | 0.042\% | 1.0 | 1.0 | 97\% | 97\% |
| 32 | 2 | 2,840 | 0.00070 | 0.044\% | 0.044\% | 1.2 | 1.2 | 160\% | 160\% |
| 33 | 1 | 3,341 | 0.00030 | 0.046\% | 0.046\% | 1.5 | 1.5 | 65\% | 65\% |
| 34 | 3 | 3,898 | 0.00077 | 0.048\% | 0.048\% | 1.9 | 1.9 | 160\% | 160\% |
| 35 | 2 | 4,467 | 0.00045 | 0.050\% | 0.050\% | 2.2 | 2.2 | 90\% | 90\% |
| 36 | 2 | 5,039 | 0.00040 | 0.052\% | 0.052\% | 2.6 | 2.6 | 76\% | 76\% |
| 37 | 1 | 5,733 | 0.00017 | 0.054\% | 0.054\% | 3.1 | 3.1 | 32\% | 32\% |
| 38 | 7 | 6,487 | 0.00108 | 0.056\% | 0.056\% | 3.6 | 3.6 | 193\% | 193\% |
| 39 | 6 | 7,298 | 0.00082 | 0.058\% | 0.058\% | 4.2 | 4.2 | 142\% | 142\% |
| 40 | 9 | 8,168 | 0.00110 | 0.060\% | 0.060\% | 4.9 | 4.9 | 184\% | 184\% |
| 41 | 9 | 9,127 | 0.00099 | 0.070\% | 0.070\% | 6.4 | 6.4 | 141\% | 141\% |
| 42 | 8 | 9,851 | 0.00081 | 0.080\% | 0.080\% | 7.9 | 7.9 | 102\% | 102\% |
| 43 | 5 | 10,535 | 0.00047 | 0.090\% | 0.090\% | 9.5 | 9.5 | 53\% | 53\% |
| 44 | 12 | 11,083 | 0.00108 | 0.100\% | 0.100\% | 11.1 | 11.1 | 108\% | 108\% |
| 45 | 15 | 11,700 | 0.00128 | 0.110\% | 0.110\% | 12.9 | 12.9 | 117\% | 117\% |
| 46 | 11 | 12,066 | 0.00091 | 0.120\% | 0.120\% | 14.5 | 14.5 | 76\% | 76\% |
| 47 | 18 | 12,423 | 0.00145 | 0.130\% | 0.130\% | 16.1 | 16.1 | 111\% | 111\% |
| 48 | 16 | 12,629 | 0.00127 | 0.140\% | 0.140\% | 17.7 | 17.7 | 90\% | 90\% |
| 49 | 16 | 12,747 | 0.00126 | 0.150\% | 0.150\% | 19.1 | 19.1 | 84\% | 84\% |
| 50 | 17 | 12,699 | 0.00134 | 0.160\% | 0.160\% | 20.3 | 20.3 | 84\% | 84\% |
| 51 | 25 | 12,517 | 0.00200 | 0.170\% | 0.170\% | 21.3 | 21.3 | 117\% | 117\% |
| 52 | 24 | 12,347 | 0.00194 | 0.180\% | 0.180\% | 22.2 | 22.2 | 108\% | 108\% |
| 53 | 30 | 12,211 | 0.00246 | 0.190\% | 0.190\% | 23.2 | 23.2 | 129\% | 129\% |
| 54 | 26 | 12,019 | 0.00216 | 0.200\% | 0.200\% | 24.0 | 24.0 | 108\% | 108\% |
| 55 | 30 | 11,542 | 0.00260 | 0.210\% | 0.210\% | 24.2 | 24.2 | 124\% | 124\% |
| 56 | 25 | 10,433 | 0.00240 | 0.220\% | 0.220\% | 23.0 | 23.0 | 109\% | 109\% |
| 57 | 22 | 9,535 | 0.00231 | 0.230\% | 0.230\% | 21.9 | 21.9 | 100\% | 100\% |
| 58 | 23 | 8,744 | 0.00263 | 0.240\% | 0.240\% | 21.0 | 21.0 | 110\% | 110\% |
| 59 | 26 | 7,932 | 0.00328 | 0.250\% | 0.250\% | 19.8 | 19.8 | 131\% | 131\% |
| 60 | 31 | 7,200 | 0.00431 | 0.260\% | 0.260\% | 18.7 | 18.7 | 166\% | 166\% |
| 61 | 20 | 6,439 | 0.00311 | 0.270\% | 0.270\% | 17.4 | 17.4 | 115\% | 115\% |
| 62 | 25 | 5,663 | 0.00441 | 0.280\% | 0.280\% | 15.9 | 15.9 | 158\% | 158\% |
| 63 | 15 | 4,308 | 0.00348 | 0.290\% | 0.290\% | 12.5 | 12.5 | 120\% | 120\% |
| 64 | 15 | 3,384 | 0.00443 | 0.300\% | 0.300\% | 10.2 | 10.2 | 148\% | 148\% |
| 65 | 13 | 2,690 | 0.00483 | 0.320\% | 0.320\% | 8.6 | 8.6 | 151\% | 151\% |
| 66 | 11 | 2,118 | 0.00519 | 0.350\% | 0.350\% | 7.4 | 7.4 | 148\% | 148\% |
| 67 | 5 | 1,469 | 0.00340 | 0.390\% | 0.390\% | 5.7 | 5.7 | 87\% | 87\% |
| 68 | 9 | 1,079 | 0.00834 | 0.440\% | 0.440\% | 4.7 | 4.7 | 190\% | 190\% |
| 69 | 6 | 821 | 0.00731 | 0.500\% | 0.500\% | 4.1 | 4.1 | 146\% | 146\% |
| 70 | 9 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 71 | 4 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 72 | 1 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 73 | 3 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| Other | 5 | 44 | 0.11364 | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Total | 567 | 306,077 |  |  |  | 471.3 | 471.3 | 120\% | 120\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

| Age | TABLE 8B |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 10 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 18 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 36 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 56 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 91 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 144 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 26 | 0 | 208 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 279 | 0.00000 | 0.020\% | 0.020\% | 0.1 | 0.1 | 0\% | 0\% |
| 28 | 0 | 356 | 0.00000 | 0.020\% | 0.020\% | 0.1 | 0.1 | 0\% | 0\% |
| 29 | 0 | 423 | 0.00000 | 0.020\% | 0.020\% | 0.1 | 0.1 | 0\% | 0\% |
| 30 | 1 | 538 | 0.00186 | 0.020\% | 0.020\% | 0.1 | 0.1 | 929\% | 929\% |
| 31 | 1 | 666 | 0.00150 | 0.021\% | 0.021\% | 0.1 | 0.1 | 715\% | 715\% |
| 32 | 0 | 780 | 0.00000 | 0.022\% | 0.022\% | 0.2 | 0.2 | 0\% | 0\% |
| 33 | 0 | 923 | 0.00000 | 0.023\% | 0.023\% | 0.2 | 0.2 | 0\% | 0\% |
| 34 | 1 | 1,045 | 0.00096 | 0.024\% | 0.024\% | 0.3 | 0.3 | 399\% | 399\% |
| 35 | 1 | 1,176 | 0.00085 | 0.025\% | 0.025\% | 0.3 | 0.3 | 340\% | 340\% |
| 36 | 0 | 1,310 | 0.00000 | 0.026\% | 0.026\% | 0.3 | 0.3 | 0\% | 0\% |
| 37 | 0 | 1,450 | 0.00000 | 0.027\% | 0.027\% | 0.4 | 0.4 | 0\% | 0\% |
| 38 | 0 | 1,598 | 0.00000 | 0.028\% | 0.028\% | 0.4 | 0.4 | 0\% | 0\% |
| 39 | 4 | 1,785 | 0.00224 | 0.029\% | 0.029\% | 0.5 | 0.5 | 773\% | 773\% |
| 40 | 0 | 1,937 | 0.00000 | 0.030\% | 0.030\% | 0.6 | 0.6 | 0\% | 0\% |
| 41 | 1 | 2,064 | 0.00048 | 0.035\% | 0.035\% | 0.7 | 0.7 | 138\% | 138\% |
| 42 | 2 | 2,112 | 0.00095 | 0.040\% | 0.040\% | 0.8 | 0.8 | 237\% | 237\% |
| 43 | 1 | 2,172 | 0.00046 | 0.045\% | 0.045\% | 1.0 | 1.0 | 102\% | 102\% |
| 44 | 1 | 2,227 | 0.00045 | 0.050\% | 0.050\% | 1.1 | 1.1 | 90\% | 90\% |
| 45 | 2 | 2,235 | 0.00089 | 0.055\% | 0.055\% | 1.2 | 1.2 | 163\% | 163\% |
| 46 | 2 | 2,261 | 0.00088 | 0.060\% | 0.060\% | 1.4 | 1.4 | 147\% | 147\% |
| 47 | 1 | 2,245 | 0.00045 | 0.065\% | 0.065\% | 1.5 | 1.5 | 69\% | 69\% |
| 48 | 1 | 2,202 | 0.00045 | 0.070\% | 0.070\% | 1.5 | 1.5 | 65\% | 65\% |
| 49 | 4 | 2,125 | 0.00188 | 0.075\% | 0.075\% | 1.6 | 1.6 | 251\% | 251\% |
| 50 | 2 | 2,016 | 0.00099 | 0.080\% | 0.080\% | 1.6 | 1.6 | 124\% | 124\% |
| 51 | 2 | 1,887 | 0.00106 | 0.085\% | 0.085\% | 1.6 | 1.6 | 125\% | 125\% |
| 52 | 2 | 1,833 | 0.00109 | 0.090\% | 0.090\% | 1.6 | 1.6 | 121\% | 121\% |
| 53 | 6 | 1,743 | 0.00344 | 0.095\% | 0.095\% | 1.7 | 1.7 | 362\% | 362\% |
| 54 | 8 | 1,657 | 0.00483 | 0.100\% | 0.100\% | 1.7 | 1.7 | 483\% | 483\% |
| 55 | 4 | 1,537 | 0.00260 | 0.105\% | 0.105\% | 1.6 | 1.6 | 248\% | 248\% |
| 56 | 0 | 1,342 | 0.00000 | 0.110\% | 0.110\% | 1.5 | 1.5 | 0\% | 0\% |
| 57 | 3 | 1,218 | 0.00246 | 0.115\% | 0.115\% | 1.4 | 1.4 | 214\% | 214\% |
| 58 | 2 | 1,100 | 0.00182 | 0.120\% | 0.120\% | 1.3 | 1.3 | 152\% | 152\% |
| 59 | 4 | 972 | 0.00412 | 0.125\% | 0.125\% | 1.2 | 1.2 | 329\% | 329\% |
| 60 | 2 | 847 | 0.00236 | 0.130\% | 0.130\% | 1.1 | 1.1 | 182\% | 182\% |
| 61 | 2 | 737 | 0.00271 | 0.135\% | 0.135\% | 1.0 | 1.0 | 201\% | 201\% |
| 62 | 2 | 643 | 0.00311 | 0.140\% | 0.140\% | 0.9 | 0.9 | 222\% | 222\% |
| 63 | 0 | 472 | 0.00000 | 0.145\% | 0.145\% | 0.7 | 0.7 | 0\% | 0\% |
| 64 | 0 | 338 | 0.00000 | 0.150\% | 0.150\% | 0.5 | 0.5 | 0\% | 0\% |
| 65 | 2 | 274 | 0.00730 | 0.160\% | 0.160\% | 0.4 | 0.4 | 456\% | 456\% |
| 66 | 1 | 204 | 0.00490 | 0.175\% | 0.175\% | 0.4 | 0.4 | 280\% | 280\% |
| 67 | 0 | 126 | 0.00000 | 0.195\% | 0.195\% | 0.2 | 0.2 | 0\% | 0\% |
| 68 | 0 | 94 | 0.00000 | 0.220\% | 0.220\% | 0.2 | 0.2 | 0\% | 0\% |
| 69 | 1 | 65 | 0.01538 | 0.250\% | 0.250\% | 0.2 | 0.2 | 615\% | 615\% |
| 70 | 2 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| Other | 0 | 3 | 0.00000 | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Total | 68 | 53,580 |  |  |  | 35.4 | 35.4 | 192\% | 192\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Age | TABLE 8C |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $\text { (3) } x(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 119 | 0.00000 | 0.038\% | 0.038\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 206 | 0.00000 | 0.038\% | 0.038\% | 0.1 | 0.1 | 0\% | 0\% |
| 22 | 0 | 276 | 0.00000 | 0.037\% | 0.037\% | 0.1 | 0.1 | 0\% | 0\% |
| 23 | 0 | 369 | 0.00000 | 0.037\% | 0.037\% | 0.1 | 0.1 | 0\% | 0\% |
| 24 | 0 | 493 | 0.00000 | 0.036\% | 0.036\% | 0.2 | 0.2 | 0\% | 0\% |
| 25 | 0 | 712 | 0.00000 | 0.036\% | 0.036\% | 0.3 | 0.3 | 0\% | 0\% |
| 26 | 0 | 1,012 | 0.00000 | 0.036\% | 0.036\% | 0.4 | 0.4 | 0\% | 0\% |
| 27 | 1 | 1,370 | 0.00073 | 0.036\% | 0.036\% | 0.5 | 0.5 | 203\% | 203\% |
| 28 | 0 | 1,789 | 0.00000 | 0.036\% | 0.036\% | 0.6 | 0.6 | 0\% | 0\% |
| 29 | 1 | 2,179 | 0.00046 | 0.036\% | 0.036\% | 0.8 | 0.8 | 127\% | 127\% |
| 30 | 2 | 2,632 | 0.00076 | 0.036\% | 0.036\% | 0.9 | 0.9 | 212\% | 212\% |
| 31 | 2 | 3,119 | 0.00064 | 0.038\% | 0.038\% | 1.2 | 1.2 | 171\% | 171\% |
| 32 | 2 | 3,620 | 0.00055 | 0.039\% | 0.039\% | 1.4 | 1.4 | 141\% | 141\% |
| 33 | 1 | 4,264 | 0.00023 | 0.041\% | 0.041\% | 1.7 | 1.7 | 57\% | 57\% |
| 34 | 4 | 4,943 | 0.00081 | 0.043\% | 0.043\% | 2.1 | 2.1 | 189\% | 189\% |
| 35 | 3 | 5,643 | 0.00053 | 0.045\% | 0.045\% | 2.5 | 2.5 | 119\% | 119\% |
| 36 | 2 | 6,349 | 0.00032 | 0.047\% | 0.047\% | 3.0 | 3.0 | 68\% | 68\% |
| 37 | 1 | 7,183 | 0.00014 | 0.049\% | 0.049\% | 3.5 | 3.5 | 29\% | 29\% |
| 38 | 7 | 8,085 | 0.00087 | 0.050\% | 0.050\% | 4.1 | 4.1 | 172\% | 172\% |
| 39 | 10 | 9,083 | 0.00110 | 0.052\% | 0.052\% | 4.8 | 4.8 | 211\% | 211\% |
| 40 | 9 | 10,105 | 0.00089 | 0.054\% | 0.054\% | 5.5 | 5.5 | 164\% | 164\% |
| 41 | 10 | 11,191 | 0.00089 | 0.064\% | 0.064\% | 7.1 | 7.1 | 141\% | 141\% |
| 42 | 10 | 11,963 | 0.00084 | 0.073\% | 0.073\% | 8.7 | 8.7 | 115\% | 115\% |
| 43 | 6 | 12,707 | 0.00047 | 0.082\% | 0.082\% | 10.5 | 10.5 | 57\% | 57\% |
| 44 | 13 | 13,310 | 0.00098 | 0.092\% | 0.092\% | 12.2 | 12.2 | 107\% | 107\% |
| 45 | 17 | 13,935 | 0.00122 | 0.101\% | 0.101\% | 14.1 | 14.1 | 121\% | 121\% |
| 46 | 13 | 14,327 | 0.00091 | 0.111\% | 0.111\% | 15.8 | 15.8 | 82\% | 82\% |
| 47 | 19 | 14,668 | 0.00130 | 0.120\% | 0.120\% | 17.6 | 17.6 | 108\% | 108\% |
| 48 | 17 | 14,831 | 0.00115 | 0.130\% | 0.130\% | 19.2 | 19.2 | 88\% | 88\% |
| 49 | 20 | 14,872 | 0.00134 | 0.139\% | 0.139\% | 20.7 | 20.7 | 97\% | 97\% |
| 50 | 19 | 14,715 | 0.00129 | 0.149\% | 0.149\% | 21.9 | 21.9 | 87\% | 87\% |
| 51 | 27 | 14,404 | 0.00187 | 0.159\% | 0.159\% | 22.9 | 22.9 | 118\% | 118\% |
| 52 | 26 | 14,180 | 0.00183 | 0.168\% | 0.168\% | 23.9 | 23.9 | 109\% | 109\% |
| 53 | 36 | 13,954 | 0.00258 | 0.178\% | 0.178\% | 24.9 | 24.9 | 145\% | 145\% |
| 54 | 34 | 13,676 | 0.00249 | 0.188\% | 0.188\% | 25.7 | 25.7 | 132\% | 132\% |
| 55 | 34 | 13,079 | 0.00260 | 0.198\% | 0.198\% | 25.9 | 25.9 | 132\% | 132\% |
| 56 | 25 | 11,775 | 0.00212 | 0.207\% | 0.207\% | 24.4 | 24.4 | 102\% | 102\% |
| 57 | 25 | 10,753 | 0.00232 | 0.217\% | 0.217\% | 23.3 | 23.3 | 107\% | 107\% |
| 58 | 25 | 9,844 | 0.00254 | 0.227\% | 0.227\% | 22.3 | 22.3 | 112\% | 112\% |
| 59 | 30 | 8,904 | 0.00337 | 0.236\% | 0.236\% | 21.0 | 21.0 | 143\% | 143\% |
| 60 | 33 | 8,047 | 0.00410 | 0.246\% | 0.246\% | 19.8 | 19.8 | 166\% | 166\% |
| 61 | 22 | 7,176 | 0.00307 | 0.256\% | 0.256\% | 18.4 | 18.4 | 120\% | 120\% |
| 62 | 27 | 6,306 | 0.00428 | 0.266\% | 0.266\% | 16.8 | 16.8 | 161\% | 161\% |
| 63 | 15 | 4,780 | 0.00314 | 0.276\% | 0.276\% | 13.2 | 13.2 | 114\% | 114\% |
| 64 | 15 | 3,722 | 0.00403 | 0.286\% | 0.286\% | 10.7 | 10.7 | 141\% | 141\% |
| 65 | 15 | 2,964 | 0.00506 | 0.305\% | 0.305\% | 9.0 | 9.0 | 166\% | 166\% |
| 66 | 12 | 2,322 | 0.00517 | 0.335\% | 0.335\% | 7.8 | 7.8 | 154\% | 154\% |
| 67 | 5 | 1,595 | 0.00313 | 0.375\% | 0.375\% | 6.0 | 6.0 | 84\% | 84\% |
| 68 | 9 | 1,173 | 0.00767 | 0.422\% | 0.422\% | 5.0 | 5.0 | 182\% | 182\% |
| 69 | 7 | 886 | 0.00790 | 0.482\% | 0.482\% | 4.3 | 4.3 | 164\% | 164\% |
| 70 | 11 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 71 | 4 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 72 | 1 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 73 | 3 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Other | 5 | 47 | 0.10638 | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Total | 635 | 359,657 |  |  |  | 506.8 | 506.8 | 125\% | 125\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT

ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS
MEN

| Age | TABLE 8A GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed $(\mathbf{8}) /(\mathbf{3})$ | Expected | Proposed | Expected $(2) /(7)$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 1,252 | 0.00000 | 0.040\% | 0.040\% | 0.5 | 0.5 | 0\% | 0\% |
| 25-29 | 2 | 5,652 | 0.00035 | 0.040\% | 0.040\% | 2.3 | 2.3 | 88\% | 88\% |
| 30-34 | 8 | 14,626 | 0.00055 | 0.045\% | 0.045\% | 6.5 | 6.5 | 123\% | 123\% |
| 35-39 | 18 | 29,024 | 0.00062 | 0.054\% | 0.054\% | 15.8 | 15.8 | 114\% | 114\% |
| 40-44 | 43 | 48,764 | 0.00088 | 0.081\% | 0.081\% | 39.7 | 39.7 | 108\% | 108\% |
| 45-49 | 76 | 61,565 | 0.00123 | 0.130\% | 0.130\% | 80.3 | 80.3 | 95\% | 95\% |
| 50-54 | 122 | 61,793 | 0.00197 | 0.180\% | 0.180\% | 111.1 | 111.1 | 110\% | 110\% |
| 55-59 | 126 | 48,186 | 0.00261 | 0.228\% | 0.228\% | 109.9 | 109.9 | 115\% | 115\% |
| 60-64 | 106 | 26,994 | 0.00393 | 0.276\% | 0.276\% | 74.6 | 74.6 | 142\% | 142\% |
| 65-69 | 44 | 8,177 | 0.00538 | 0.374\% | 0.374\% | 30.6 | 30.6 | 144\% | 144\% |
| 70-74 | 17 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 5 | 44 | 0.11364 | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Total | 567 | 306,077 |  |  |  | 471.3 | 471.3 | 120\% | 120\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT
ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS
WOMEN

| Age | TABLE 8B GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 211 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 25-29 | 0 | 1,410 | 0.00000 | 0.020\% | 0.020\% | 0.3 | 0.3 | 0\% | 0\% |
| 30-34 | 3 | 3,952 | 0.00076 | 0.022\% | 0.022\% | 0.9 | 0.9 | 340\% | 340\% |
| 35-39 | 5 | 7,319 | 0.00068 | 0.027\% | 0.027\% | 2.0 | 2.0 | 251\% | 251\% |
| 40-44 | 5 | 10,512 | 0.00048 | 0.040\% | 0.040\% | 4.2 | 4.2 | 118\% | 118\% |
| 45-49 | 10 | 11,068 | 0.00090 | 0.065\% | 0.065\% | 7.2 | 7.2 | 139\% | 139\% |
| 50-54 | 20 | 9,136 | 0.00219 | 0.090\% | 0.090\% | 8.2 | 8.2 | 245\% | 245\% |
| 55-59 | 13 | 6,169 | 0.00211 | 0.114\% | 0.114\% | 7.0 | 7.0 | 185\% | 185\% |
| 60-64 | 6 | 3,037 | 0.00198 | 0.138\% | 0.138\% | 4.2 | 4.2 | 143\% | 143\% |
| 65-69 | 4 | 763 | 0.00524 | 0.185\% | 0.185\% | 1.4 | 1.4 | 284\% | 284\% |
| 70-74 | 2 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 3 | 0.00000 | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Total | 68 | 53,580 |  |  |  | 35.4 | 35.4 | 192\% | 192\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT
ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS
MEN AND WOMEN

| Age | TABLE 8C GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate (2) / (3) | Expected <br> (7) / (3) | Proposed (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 1,463 | 0.00000 | 0.037\% | 0.037\% | 0.5 | 0.5 | 0\% | 0\% |
| 25-29 | 2 | 7,062 | 0.00028 | 0.036\% | 0.036\% | 2.5 | 2.5 | 79\% | 79\% |
| 30-34 | 11 | 18,578 | 0.00059 | 0.040\% | 0.040\% | 7.4 | 7.4 | 148\% | 148\% |
| 35-39 | 23 | 36,343 | 0.00063 | 0.049\% | 0.049\% | 17.8 | 17.8 | 129\% | 129\% |
| 40-44 | 48 | 59,276 | 0.00081 | 0.074\% | 0.074\% | 44.0 | 44.0 | 109\% | 109\% |
| 45-49 | 86 | 72,633 | 0.00118 | 0.120\% | 0.120\% | 87.5 | 87.5 | 98\% | 98\% |
| 50-54 | 142 | 70,929 | 0.00200 | 0.168\% | 0.168\% | 119.2 | 119.2 | 119\% | 119\% |
| 55-59 | 139 | 54,355 | 0.00256 | 0.215\% | 0.215\% | 117.0 | 117.0 | 119\% | 119\% |
| 60-64 | 112 | 30,031 | 0.00373 | 0.262\% | 0.262\% | 78.8 | 78.8 | 142\% | 142\% |
| 65-69 | 48 | 8,940 | 0.00537 | 0.358\% | 0.358\% | 32.0 | 32.0 | 150\% | 150\% |
| 70-74 | 19 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 5 | 47 | 0.10638 | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Total | 635 | 359,657 |  |  |  | 506.8 | 506.8 | 125\% | 125\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Plan <br> Year <br> Ending <br> June 30, | TABLE 8D <br> Life Years Exposed | Actual Deaths | Expected Deaths | 10-YEAR PERIOD ENDING 6/30/2013 <br> Mortality Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / <br> Expected | Actual (3) / (2) | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 37,012 | 97 | 33.7 | 288\% | 0.262\% | 0.091\% |
| 2005 | 36,264 | 61 | 33.8 | 181\% | 0.168\% | 0.093\% |
| 2006 | 36,147 | 72 | 35.2 | 205\% | 0.199\% | 0.097\% |
| 2007 | 36,324 | 37 | 36.0 | 103\% | 0.102\% | 0.099\% |
| 2008 | 36,517 | 37 | 36.8 | 101\% | 0.101\% | 0.101\% |
| 2009 | 37,293 | 95 | 37.9 | 250\% | 0.255\% | 0.102\% |
| 2010 | 36,414 | 94 | 38.2 | 246\% | 0.258\% | 0.105\% |
| 2011 | 35,308 | 80 | 38.2 | 210\% | 0.227\% | 0.108\% |
| 2012 | 34,311 | 44 | 37.9 | 116\% | 0.128\% | 0.111\% |
| 2013 | 34,067 | 18 | 38.2 | 47\% | 0.053\% | 0.112\% |
| Total | 359,657 | 635 | 365.9 | 174\% | 0.177\% | 0.102\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT ACCIDENTAL MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Age | TABLE 9A |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 52 | 0.00000 | 0.010\% | 0.003\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 92 | 0.00000 | 0.010\% | 0.003\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 106 | 0.00000 | 0.010\% | 0.003\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 126 | 0.00000 | 0.010\% | 0.003\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 167 | 0.00000 | 0.010\% | 0.003\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 248 | 0.00000 | 0.010\% | 0.003\% | 0.0 | 0.0 | 0\% | 0\% |
| 26 | 0 | 344 | 0.00000 | 0.010\% | 0.003\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 445 | 0.00000 | 0.010\% | 0.003\% | 0.0 | 0.0 | 0\% | 0\% |
| 28 | 0 | 610 | 0.00000 | 0.010\% | 0.003\% | 0.1 | 0.0 | 0\% | 0\% |
| 29 | 0 | 737 | 0.00000 | 0.010\% | 0.003\% | 0.1 | 0.0 | 0\% | 0\% |
| 30 | 0 | 915 | 0.00000 | 0.010\% | 0.003\% | 0.1 | 0.0 | 0\% | 0\% |
| 31 | 0 | 1,105 | 0.00000 | 0.010\% | 0.003\% | 0.1 | 0.0 | 0\% | 0\% |
| 32 | 0 | 1,229 | 0.00000 | 0.010\% | 0.003\% | 0.1 | 0.0 | 0\% | 0\% |
| 33 | 0 | 1,433 | 0.00000 | 0.010\% | 0.003\% | 0.1 | 0.0 | 0\% | 0\% |
| 34 | 0 | 1,625 | 0.00000 | 0.010\% | 0.003\% | 0.2 | 0.0 | 0\% | 0\% |
| 35 | 0 | 1,772 | 0.00000 | 0.010\% | 0.003\% | 0.2 | 0.0 | 0\% | 0\% |
| 36 | 0 | 1,947 | 0.00000 | 0.010\% | 0.003\% | 0.2 | 0.0 | 0\% | 0\% |
| 37 | 0 | 2,121 | 0.00000 | 0.010\% | 0.003\% | 0.2 | 0.1 | 0\% | 0\% |
| 38 | 0 | 2,422 | 0.00000 | 0.010\% | 0.003\% | 0.2 | 0.1 | 0\% | 0\% |
| 39 | 0 | 2,739 | 0.00000 | 0.010\% | 0.003\% | 0.3 | 0.1 | 0\% | 0\% |
| 40 | 0 | 3,115 | 0.00000 | 0.010\% | 0.003\% | 0.3 | 0.1 | 0\% | 0\% |
| 41 | 0 | 3,521 | 0.00000 | 0.010\% | 0.003\% | 0.4 | 0.1 | 0\% | 0\% |
| 42 | 0 | 3,819 | 0.00000 | 0.010\% | 0.003\% | 0.4 | 0.1 | 0\% | 0\% |
| 43 | 0 | 4,180 | 0.00000 | 0.010\% | 0.003\% | 0.4 | 0.1 | 0\% | 0\% |
| 44 | 0 | 4,596 | 0.00000 | 0.010\% | 0.003\% | 0.5 | 0.1 | 0\% | 0\% |
| 45 | 0 | 5,057 | 0.00000 | 0.010\% | 0.003\% | 0.5 | 0.1 | 0\% | 0\% |
| 46 | 0 | 5,486 | 0.00000 | 0.010\% | 0.003\% | 0.5 | 0.1 | 0\% | 0\% |
| 47 | 0 | 5,919 | 0.00000 | 0.010\% | 0.003\% | 0.6 | 0.1 | 0\% | 0\% |
| 48 | 0 | 6,070 | 0.00000 | 0.010\% | 0.003\% | 0.6 | 0.2 | 0\% | 0\% |
| 49 | 0 | 6,159 | 0.00000 | 0.010\% | 0.003\% | 0.6 | 0.2 | 0\% | 0\% |
| 50 | 0 | 6,089 | 0.00000 | 0.010\% | 0.003\% | 0.6 | 0.2 | 0\% | 0\% |
| 51 | 0 | 5,963 | 0.00000 | 0.010\% | 0.003\% | 0.6 | 0.1 | 0\% | 0\% |
| 52 | 0 | 5,886 | 0.00000 | 0.010\% | 0.003\% | 0.6 | 0.1 | 0\% | 0\% |
| 53 | 0 | 5,893 | 0.00000 | 0.010\% | 0.003\% | 0.6 | 0.1 | 0\% | 0\% |
| 54 | 0 | 5,893 | 0.00000 | 0.010\% | 0.003\% | 0.6 | 0.1 | 0\% | 0\% |
| 55 | 0 | 5,695 | 0.00000 | 0.010\% | 0.003\% | 0.6 | 0.1 | 0\% | 0\% |
| 56 | 0 | 5,106 | 0.00000 | 0.010\% | 0.003\% | 0.5 | 0.1 | 0\% | 0\% |
| 57 | 0 | 4,609 | 0.00000 | 0.010\% | 0.003\% | 0.5 | 0.1 | 0\% | 0\% |
| 58 | 0 | 4,266 | 0.00000 | 0.010\% | 0.003\% | 0.4 | 0.1 | 0\% | 0\% |
| 59 | 1 | 3,974 | 0.00025 | 0.010\% | 0.003\% | 0.4 | 0.1 | 252\% | 1007\% |
| 60 | 0 | 3,688 | 0.00000 | 0.010\% | 0.003\% | 0.4 | 0.1 | 0\% | 0\% |
| 61 | 0 | 3,307 | 0.00000 | 0.010\% | 0.003\% | 0.3 | 0.1 | 0\% | 0\% |
| 62 | 0 | 2,988 | 0.00000 | 0.010\% | 0.003\% | 0.3 | 0.1 | 0\% | 0\% |
| 63 | 0 | 2,406 | 0.00000 | 0.010\% | 0.003\% | 0.2 | 0.1 | 0\% | 0\% |
| 64 | 0 | 1,865 | 0.00000 | 0.010\% | 0.003\% | 0.2 | 0.0 | 0\% | 0\% |
| 65 | 0 | 1,486 | 0.00000 | 0.010\% | 0.003\% | 0.1 | 0.0 | 0\% | 0\% |
| 66 | 1 | 1,130 | 0.00088 | 0.010\% | 0.003\% | 0.1 | 0.0 | 885\% | 3540\% |
| 67 | 0 | 749 | 0.00000 | 0.010\% | 0.003\% | 0.1 | 0.0 | 0\% | 0\% |
| 68 | 0 | 523 | 0.00000 | 0.010\% | 0.003\% | 0.1 | 0.0 | 0\% | 0\% |
| 69 | 0 | 403 | 0.00000 | 0.010\% | 0.003\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| Other | 0 | 23 | 0.00000 | 0.010\% | 0.003\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 2 | 140,099 |  |  |  | 14.0 | 3.5 | 14\% | 57\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT ACCIDENTAL MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Age | TABLE 9A GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual Deaths | Total <br> Exposed | Actual Rate (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 543 | 0.00000 | 0.010\% | 0.003\% | 0.1 | 0.0 | 0\% | 0\% |
| 25-29 | 0 | 2,384 | 0.00000 | 0.010\% | 0.003\% | 0.2 | 0.1 | 0\% | 0\% |
| 30-34 | 0 | 6,307 | 0.00000 | 0.010\% | 0.003\% | 0.6 | 0.2 | 0\% | 0\% |
| 35-39 | 0 | 11,001 | 0.00000 | 0.010\% | 0.003\% | 1.1 | 0.3 | 0\% | 0\% |
| 40-44 | 0 | 19,231 | 0.00000 | 0.010\% | 0.003\% | 1.9 | 0.5 | 0\% | 0\% |
| 45-49 | 0 | 28,691 | 0.00000 | 0.010\% | 0.003\% | 2.9 | 0.7 | 0\% | 0\% |
| 50-54 | 0 | 29,724 | 0.00000 | 0.010\% | 0.003\% | 3.0 | 0.7 | 0\% | 0\% |
| 55-59 | 1 | 23,650 | 0.00004 | 0.010\% | 0.003\% | 2.4 | 0.6 | 42\% | 169\% |
| 60-64 | 0 | 14,254 | 0.00000 | 0.010\% | 0.003\% | 1.4 | 0.4 | 0\% | 0\% |
| 65-69 | 1 | 4,291 | 0.00023 | 0.010\% | 0.003\% | 0.4 | 0.1 | 233\% | 932\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 23 | 0.00000 | 0.010\% | 0.003\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 2 | 140,099 |  |  |  | 14.0 | 3.5 | 14\% | 57\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT ACCIDENTAL MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Age | TABLE 9A |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 119 | 0.00000 | 0.010\% | 0.003\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 206 | 0.00000 | 0.010\% | 0.003\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 276 | 0.00000 | 0.010\% | 0.003\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 369 | 0.00000 | 0.010\% | 0.003\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 493 | 0.00000 | 0.010\% | 0.003\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 712 | 0.00000 | 0.010\% | 0.003\% | 0.1 | 0.0 | 0\% | 0\% |
| 26 | 0 | 1,011 | 0.00000 | 0.010\% | 0.003\% | 0.1 | 0.0 | 0\% | 0\% |
| 27 | 0 | 1,369 | 0.00000 | 0.010\% | 0.003\% | 0.1 | 0.0 | 0\% | 0\% |
| 28 | 0 | 1,788 | 0.00000 | 0.010\% | 0.003\% | 0.2 | 0.0 | 0\% | 0\% |
| 29 | 0 | 2,179 | 0.00000 | 0.010\% | 0.003\% | 0.2 | 0.1 | 0\% | 0\% |
| 30 | 0 | 2,632 | 0.00000 | 0.010\% | 0.003\% | 0.3 | 0.1 | 0\% | 0\% |
| 31 | 0 | 3,119 | 0.00000 | 0.010\% | 0.003\% | 0.3 | 0.1 | 0\% | 0\% |
| 32 | 0 | 3,620 | 0.00000 | 0.010\% | 0.003\% | 0.4 | 0.1 | 0\% | 0\% |
| 33 | 0 | 4,264 | 0.00000 | 0.010\% | 0.003\% | 0.4 | 0.1 | 0\% | 0\% |
| 34 | 0 | 4,943 | 0.00000 | 0.010\% | 0.003\% | 0.5 | 0.1 | 0\% | 0\% |
| 35 | 0 | 5,643 | 0.00000 | 0.010\% | 0.003\% | 0.6 | 0.1 | 0\% | 0\% |
| 36 | 0 | 6,349 | 0.00000 | 0.010\% | 0.003\% | 0.6 | 0.2 | 0\% | 0\% |
| 37 | 0 | 7,183 | 0.00000 | 0.010\% | 0.003\% | 0.7 | 0.2 | 0\% | 0\% |
| 38 | 0 | 8,084 | 0.00000 | 0.010\% | 0.003\% | 0.8 | 0.2 | 0\% | 0\% |
| 39 | 0 | 9,082 | 0.00000 | 0.010\% | 0.003\% | 0.9 | 0.2 | 0\% | 0\% |
| 40 | 0 | 10,104 | 0.00000 | 0.010\% | 0.003\% | 1.0 | 0.3 | 0\% | 0\% |
| 41 | 0 | 11,190 | 0.00000 | 0.010\% | 0.003\% | 1.1 | 0.3 | 0\% | 0\% |
| 42 | 0 | 11,963 | 0.00000 | 0.010\% | 0.003\% | 1.2 | 0.3 | 0\% | 0\% |
| 43 | 0 | 12,707 | 0.00000 | 0.010\% | 0.003\% | 1.3 | 0.3 | 0\% | 0\% |
| 44 | 0 | 13,309 | 0.00000 | 0.010\% | 0.003\% | 1.3 | 0.3 | 0\% | 0\% |
| 45 | 0 | 13,935 | 0.00000 | 0.010\% | 0.003\% | 1.4 | 0.3 | 0\% | 0\% |
| 46 | 0 | 14,327 | 0.00000 | 0.010\% | 0.003\% | 1.4 | 0.4 | 0\% | 0\% |
| 47 | 0 | 14,668 | 0.00000 | 0.010\% | 0.003\% | 1.5 | 0.4 | 0\% | 0\% |
| 48 | 0 | 14,830 | 0.00000 | 0.010\% | 0.003\% | 1.5 | 0.4 | 0\% | 0\% |
| 49 | 0 | 14,871 | 0.00000 | 0.010\% | 0.003\% | 1.5 | 0.4 | 0\% | 0\% |
| 50 | 0 | 14,714 | 0.00000 | 0.010\% | 0.003\% | 1.5 | 0.4 | 0\% | 0\% |
| 51 | 0 | 14,399 | 0.00000 | 0.010\% | 0.003\% | 1.4 | 0.4 | 0\% | 0\% |
| 52 | 0 | 14,174 | 0.00000 | 0.010\% | 0.003\% | 1.4 | 0.4 | 0\% | 0\% |
| 53 | 0 | 13,948 | 0.00000 | 0.010\% | 0.003\% | 1.4 | 0.3 | 0\% | 0\% |
| 54 | 1 | 13,666 | 0.00007 | 0.010\% | 0.003\% | 1.4 | 0.3 | 73\% | 293\% |
| 55 | 0 | 13,065 | 0.00000 | 0.010\% | 0.003\% | 1.3 | 0.3 | 0\% | 0\% |
| 56 | 0 | 11,762 | 0.00000 | 0.010\% | 0.003\% | 1.2 | 0.3 | 0\% | 0\% |
| 57 | 0 | 10,747 | 0.00000 | 0.010\% | 0.003\% | 1.1 | 0.3 | 0\% | 0\% |
| 58 | 0 | 9,837 | 0.00000 | 0.010\% | 0.003\% | 1.0 | 0.2 | 0\% | 0\% |
| 59 | 1 | 8,896 | 0.00011 | 0.010\% | 0.003\% | 0.9 | 0.2 | 112\% | 450\% |
| 60 | 1 | 8,041 | 0.00012 | 0.010\% | 0.003\% | 0.8 | 0.2 | 124\% | 497\% |
| 61 | 0 | 7,170 | 0.00000 | 0.010\% | 0.003\% | 0.7 | 0.2 | 0\% | 0\% |
| 62 | 0 | 6,300 | 0.00000 | 0.010\% | 0.003\% | 0.6 | 0.2 | 0\% | 0\% |
| 63 | 0 | 4,775 | 0.00000 | 0.010\% | 0.003\% | 0.5 | 0.1 | 0\% | 0\% |
| 64 | 0 | 3,716 | 0.00000 | 0.010\% | 0.003\% | 0.4 | 0.1 | 0\% | 0\% |
| 65 | 0 | 2,958 | 0.00000 | 0.010\% | 0.003\% | 0.3 | 0.1 | 0\% | 0\% |
| 66 | 1 | 2,319 | 0.00043 | 0.010\% | 0.003\% | 0.2 | 0.1 | 431\% | 1725\% |
| 67 | 0 | 1,594 | 0.00000 | 0.010\% | 0.003\% | 0.2 | 0.0 | 0\% | 0\% |
| 68 | 0 | 1,172 | 0.00000 | 0.010\% | 0.003\% | 0.1 | 0.0 | 0\% | 0\% |
| 69 | 0 | 885 | 0.00000 | 0.010\% | 0.003\% | 0.1 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| Other | 0 | 47 | 0.00000 | 0.010\% | 0.003\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 4 | 359,530 |  |  |  | 36.0 | 9.0 | 11\% | 45\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT ACCIDENTAL MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Age | TABLE 9A GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed $(8) /(3)$ | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 1,463 | 0.00000 | 0.010\% | 0.003\% | 0.1 | 0.0 | 0\% | 0\% |
| 25-29 | 0 | 7,059 | 0.00000 | 0.010\% | 0.003\% | 0.7 | 0.2 | 0\% | 0\% |
| 30-34 | 0 | 18,578 | 0.00000 | 0.010\% | 0.003\% | 1.9 | 0.5 | 0\% | 0\% |
| 35-39 | 0 | 36,341 | 0.00000 | 0.010\% | 0.003\% | 3.6 | 0.9 | 0\% | 0\% |
| 40-44 | 0 | 59,273 | 0.00000 | 0.010\% | 0.003\% | 5.9 | 1.5 | 0\% | 0\% |
| 45-49 | 0 | 72,631 | 0.00000 | 0.010\% | 0.003\% | 7.3 | 1.8 | 0\% | 0\% |
| 50-54 | 1 | 70,901 | 0.00001 | 0.010\% | 0.003\% | 7.1 | 1.8 | 14\% | 56\% |
| 55-59 | 1 | 54,307 | 0.00002 | 0.010\% | 0.003\% | 5.4 | 1.4 | 18\% | 74\% |
| 60-64 | 1 | 30,002 | 0.00003 | 0.010\% | 0.003\% | 3.0 | 0.8 | 33\% | 133\% |
| 65-69 | 1 | 8,928 | 0.00011 | 0.010\% | 0.003\% | 0.9 | 0.2 | 112\% | 448\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 47 | 0.00000 | 0.010\% | 0.003\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 4 | 359,530 |  |  |  | 36.0 | 9.0 | 11\% | 45\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT ACCIDENTAL MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Plan <br> Year | TABLE 9B |  |  | 10-YEAR PE | Mortality Rate |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending June 30, | Life Years Exposed | Actual Deaths | Expected Deaths | Actual / <br> Expected | Actual $(3) /(2)$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 36,970 | 1 | 3.6 | 28\% | 0.003\% | 0.010\% |
| 2005 | 36,238 | 0 | 3.5 | 0\% | 0.000\% | 0.010\% |
| 2006 | 36,122 | 1 | 3.5 | 28\% | 0.003\% | 0.010\% |
| 2007 | 36,304 | 0 | 3.6 | 0\% | 0.000\% | 0.010\% |
| 2008 | 36,504 | 0 | 3.6 | 0\% | 0.000\% | 0.010\% |
| 2009 | 37,293 | 0 | 3.7 | 0\% | 0.000\% | 0.010\% |
| 2010 | 36,413 | 0 | 3.6 | 0\% | 0.000\% | 0.010\% |
| 2011 | 35,308 | 1 | 3.5 | 29\% | 0.003\% | 0.010\% |
| 2012 | 34,311 | 0 | 3.4 | 0\% | 0.000\% | 0.010\% |
| 2013 | 34,067 | 1 | 3.3 | 30\% | 0.003\% | 0.010\% |
| Total | 359,530 | 4 | 35.2 | 11\% | 0.001\% | 0.010\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT
ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS
MEN

|  | TABLE 10A |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 24 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 27 | 0 | 21 | 0.0000 | 0.10\% | 0.10\% | 0.0 | 0.0 | 0\% | 0\% |
| 28 | 0 | 55 | 0.0000 | 0.10\% | 0.10\% | 0.1 | 0.1 | 0\% | 0\% |
| 29 | 0 | 43 | 0.0000 | 0.10\% | 0.10\% | 0.0 | 0.0 | 0\% | 0\% |
| 30 | 0 | 35 | 0.0000 | 0.10\% | 0.10\% | 0.0 | 0.0 | 0\% | 0\% |
| 31 | 0 | 63 | 0.0000 | 0.12\% | 0.12\% | 0.1 | 0.1 | 0\% | 0\% |
| 32 | 0 | 122 | 0.0000 | 0.14\% | 0.14\% | 0.2 | 0.2 | 0\% | 0\% |
| 33 | 1 | 203 | 0.0049 | 0.16\% | 0.16\% | 0.3 | 0.3 | 308\% | 308\% |
| 34 | 1 | 309 | 0.0032 | 0.18\% | 0.18\% | 0.6 | 0.6 | 180\% | 180\% |
| 35 | 0 | 378 | 0.0000 | 0.20\% | 0.20\% | 0.8 | 0.8 | 0\% | 0\% |
| 36 | 2 | 531 | 0.0038 | 0.22\% | 0.22\% | 1.2 | 1.2 | 171\% | 171\% |
| 37 | 1 | 748 | 0.0013 | 0.24\% | 0.24\% | 1.8 | 1.8 | 56\% | 56\% |
| 38 | 2 | 1,004 | 0.0020 | 0.26\% | 0.26\% | 2.6 | 2.6 | 77\% | 77\% |
| 39 | 3 | 1,309 | 0.0023 | 0.28\% | 0.28\% | 3.7 | 3.7 | 82\% | 82\% |
| 40 | 4 | 1,553 | 0.0026 | 0.30\% | 0.30\% | 4.7 | 4.7 | 86\% | 86\% |
| 41 | 1 | 1,859 | 0.0005 | 0.32\% | 0.32\% | 5.9 | 5.9 | 17\% | 17\% |
| 42 | 3 | 2,236 | 0.0013 | 0.34\% | 0.34\% | 7.6 | 7.6 | 39\% | 39\% |
| 43 | 7 | 2,600 | 0.0027 | 0.36\% | 0.36\% | 9.4 | 9.4 | 75\% | 75\% |
| 44 | 11 | 2,985 | 0.0037 | 0.38\% | 0.38\% | 11.3 | 11.3 | 97\% | 97\% |
| 45 | 7 | 3,429 | 0.0020 | 0.40\% | 0.40\% | 13.7 | 13.7 | 51\% | 51\% |
| 46 | 18 | 3,665 | 0.0049 | 0.42\% | 0.42\% | 15.4 | 15.4 | 117\% | 117\% |
| 47 | 18 | 3,806 | 0.0047 | 0.44\% | 0.44\% | 16.7 | 16.7 | 107\% | 107\% |
| 48 | 23 | 3,894 | 0.0059 | 0.46\% | 0.46\% | 17.9 | 17.9 | 128\% | 128\% |
| 49 | 16 | 3,939 | 0.0041 | 0.48\% | 0.48\% | 18.9 | 18.9 | 85\% | 85\% |
| 50 | 14 | 3,955 | 0.0035 | 0.50\% | 0.50\% | 19.8 | 19.8 | 71\% | 71\% |
| 51 | 27 | 4,053 | 0.0067 | 0.52\% | 0.52\% | 21.1 | 21.1 | 128\% | 128\% |
| 52 | 20 | 4,146 | 0.0048 | 0.54\% | 0.54\% | 22.4 | 22.4 | 89\% | 89\% |
| 53 | 22 | 4,088 | 0.0054 | 0.56\% | 0.56\% | 22.9 | 22.9 | 96\% | 96\% |
| 54 | 18 | 4,092 | 0.0044 | 0.58\% | 0.58\% | 23.7 | 23.7 | 76\% | 76\% |
| 55 | 28 | 4,000 | 0.0070 | 0.60\% | 0.60\% | 24.0 | 24.0 | 117\% | 117\% |
| 56 | 27 | 3,586 | 0.0075 | 0.60\% | 0.60\% | 21.5 | 21.5 | 125\% | 125\% |
| 57 | 20 | 3,331 | 0.0060 | 0.60\% | 0.60\% | 20.0 | 20.0 | 100\% | 100\% |
| 58 | 17 | 3,134 | 0.0054 | 0.60\% | 0.60\% | 18.8 | 18.8 | 90\% | 90\% |
| 59 | 20 | 2,878 | 0.0069 | 0.60\% | 0.60\% | 17.3 | 17.3 | 116\% | 116\% |
| 60 | 19 | 2,659 | 0.0071 | 0.60\% | 0.60\% | 16.0 | 16.0 | 119\% | 119\% |
| 61 | 14 | 2,422 | 0.0058 | 0.60\% | 0.60\% | 14.5 | 14.5 | 96\% | 96\% |
| 62 | 6 | 2,161 | 0.0028 | 0.60\% | 0.60\% | 13.0 | 13.0 | 46\% | 46\% |
| 63 | 5 | 1,640 | 0.0030 | 0.60\% | 0.60\% | 9.8 | 9.8 | 51\% | 51\% |
| 64 | 9 | 1,230 | 0.0073 | 0.60\% | 0.60\% | 7.4 | 7.4 | 122\% | 122\% |
| 65 | 1 | 912 | 0.0011 | 0.60\% | 0.60\% | 5.5 | 5.5 | 18\% | 18\% |
| 66 | 3 | 703 | 0.0043 | 0.60\% | 0.60\% | 4.2 | 4.2 | 71\% | 71\% |
| 67 | 4 | 519 | 0.0077 | 0.60\% | 0.60\% | 3.1 | 3.1 | 128\% | 128\% |
| 68 | 0 | 411 | 0.0000 | 0.60\% | 0.60\% | 2.5 | 2.5 | 0\% | 0\% |
| 69 | 1 | 346 | 0.0029 | 0.60\% | 0.60\% | 2.1 | 2.1 | 48\% | 48\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 393 | 85,053 |  |  |  | 422.3 | 422.3 | 93\% | 93\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

|  | TABLE 10B |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.10\% | 0.14\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.10\% | 0.14\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.10\% | 0.14\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 0 | N/A | 0.10\% | 0.14\% | 0 | 0 | 0\% | 0\% |
| 24 | 0 | 0 | N/A | 0.10\% | 0.14\% | 0 | 0 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.10\% | 0.14\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 0 | N/A | 0.10\% | 0.14\% | 0 | 0 | 0\% | 0\% |
| 27 | 0 | 1 | 0.0000 | 0.10\% | 0.14\% | 0.0 | 0.0 | 0\% | 0\% |
| 28 | 1 | 4 | 0.2500 | 0.10\% | 0.14\% | 0.0 | 0.0 | 25000\% | 17857\% |
| 29 | 0 | 2 | 0.0000 | 0.10\% | 0.14\% | 0.0 | 0.0 | 0\% | 0\% |
| 30 | 0 | 7 | 0.0000 | 0.10\% | 0.14\% | 0.0 | 0.0 | 0\% | 0\% |
| 31 | 0 | 12 | 0.0000 | 0.12\% | 0.17\% | 0.0 | 0.0 | 0\% | 0\% |
| 32 | 0 | 21 | 0.0000 | 0.14\% | 0.20\% | 0.0 | 0.0 | 0\% | 0\% |
| 33 | 1 | 39 | 0.0256 | 0.16\% | 0.22\% | 0.1 | 0.1 | 1603\% | 1145\% |
| 34 | 1 | 73 | 0.0137 | 0.18\% | 0.25\% | 0.1 | 0.2 | 761\% | 544\% |
| 35 | 0 | 111 | 0.0000 | 0.20\% | 0.28\% | 0.2 | 0.3 | 0\% | 0\% |
| 36 | 0 | 176 | 0.0000 | 0.22\% | 0.31\% | 0.4 | 0.5 | 0\% | 0\% |
| 37 | 0 | 243 | 0.0000 | 0.24\% | 0.34\% | 0.6 | 0.8 | 0\% | 0\% |
| 38 | 1 | 302 | 0.0033 | 0.26\% | 0.36\% | 0.8 | 1.1 | 127\% | 91\% |
| 39 | 1 | 378 | 0.0026 | 0.28\% | 0.39\% | 1.1 | 1.5 | 94\% | 67\% |
| 40 | 2 | 429 | 0.0047 | 0.30\% | 0.42\% | 1.3 | 1.8 | 155\% | 111\% |
| 41 | 7 | 463 | 0.0151 | 0.32\% | 0.45\% | 1.5 | 2.1 | 472\% | 337\% |
| 42 | 1 | 504 | 0.0020 | 0.34\% | 0.48\% | 1.7 | 2.4 | 58\% | 42\% |
| 43 | 3 | 570 | 0.0053 | 0.36\% | 0.50\% | 2.1 | 2.9 | 146\% | 104\% |
| 44 | 6 | 646 | 0.0093 | 0.38\% | 0.53\% | 2.5 | 3.4 | 244\% | 175\% |
| 45 | 3 | 700 | 0.0043 | 0.40\% | 0.56\% | 2.8 | 3.9 | 107\% | 77\% |
| 46 | 10 | 725 | 0.0138 | 0.42\% | 0.59\% | 3.0 | 4.3 | 328\% | 235\% |
| 47 | 11 | 719 | 0.0153 | 0.44\% | 0.62\% | 3.2 | 4.4 | 348\% | 248\% |
| 48 | 6 | 662 | 0.0091 | 0.46\% | 0.64\% | 3.0 | 4.3 | 197\% | 141\% |
| 49 | 9 | 652 | 0.0138 | 0.48\% | 0.67\% | 3.1 | 4.4 | 288\% | 205\% |
| 50 | 9 | 663 | 0.0136 | 0.50\% | 0.70\% | 3.3 | 4.6 | 271\% | 194\% |
| 51 | 12 | 627 | 0.0191 | 0.52\% | 0.73\% | 3.3 | 4.6 | 368\% | 263\% |
| 52 | 12 | 622 | 0.0193 | 0.54\% | 0.76\% | 3.4 | 4.7 | 357\% | 255\% |
| 53 | 9 | 590 | 0.0153 | 0.56\% | 0.78\% | 3.3 | 4.6 | 272\% | 195\% |
| 54 | 8 | 570 | 0.0140 | 0.58\% | 0.81\% | 3.3 | 4.6 | 242\% | 173\% |
| 55 | 5 | 565 | 0.0088 | 0.60\% | 0.84\% | 3.4 | 4.7 | 147\% | 105\% |
| 56 | 4 | 526 | 0.0076 | 0.60\% | 0.84\% | 3.2 | 4.4 | 127\% | 91\% |
| 57 | 7 | 456 | 0.0154 | 0.60\% | 0.84\% | 2.7 | 3.8 | 256\% | 183\% |
| 58 | 8 | 408 | 0.0196 | 0.60\% | 0.84\% | 2.4 | 3.4 | 327\% | 233\% |
| 59 | 8 | 358 | 0.0223 | 0.60\% | 0.84\% | 2.1 | 3.0 | 372\% | 266\% |
| 60 | 7 | 308 | 0.0227 | 0.60\% | 0.84\% | 1.8 | 2.6 | 379\% | 271\% |
| 61 | 2 | 282 | 0.0071 | 0.60\% | 0.84\% | 1.7 | 2.4 | 118\% | 84\% |
| 62 | 2 | 250 | 0.0080 | 0.60\% | 0.84\% | 1.5 | 2.1 | 133\% | 95\% |
| 63 | 1 | 177 | 0.0056 | 0.60\% | 0.84\% | 1.1 | 1.5 | 94\% | 67\% |
| 64 | 1 | 137 | 0.0073 | 0.60\% | 0.84\% | 0.8 | 1.2 | 122\% | 87\% |
| 65 | 1 | 111 | 0.0090 | 0.60\% | 0.84\% | 0.7 | 0.9 | 150\% | 107\% |
| 66 | 0 | 85 | 0.0000 | 0.60\% | 0.84\% | 0.5 | 0.7 | 0\% | 0\% |
| 67 | 0 | 51 | 0.0000 | 0.60\% | 0.84\% | 0.3 | 0.4 | 0\% | 0\% |
| 68 | 0 | 34 | 0.0000 | 0.60\% | 0.84\% | 0.2 | 0.3 | 0\% | 0\% |
| 69 | 0 | 20 | 0.0000 | 0.60\% | 0.84\% | 0.1 | 0.2 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 159 | 14,279 |  |  |  | 66.6 | 93.3 | 239\% | 170\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

|  | TABLE 10C |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 24 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 27 | 0 | 22 | 0.0000 | 0.10\% | 0.10\% | 0.0 | 0.0 | 0\% | 0\% |
| 28 | 1 | 59 | 0.0169 | 0.10\% | 0.10\% | 0.1 | 0.1 | 1695\% | 1650\% |
| 29 | 0 | 45 | 0.0000 | 0.10\% | 0.10\% | 0.0 | 0.0 | 0\% | 0\% |
| 30 | 0 | 42 | 0.0000 | 0.10\% | 0.11\% | 0.0 | 0.0 | 0\% | 0\% |
| 31 | 0 | 75 | 0.0000 | 0.12\% | 0.13\% | 0.1 | 0.1 | 0\% | 0\% |
| 32 | 0 | 143 | 0.0000 | 0.14\% | 0.15\% | 0.2 | 0.2 | 0\% | 0\% |
| 33 | 2 | 242 | 0.0083 | 0.16\% | 0.17\% | 0.4 | 0.4 | 517\% | 485\% |
| 34 | 2 | 382 | 0.0052 | 0.18\% | 0.19\% | 0.7 | 0.7 | 291\% | 270\% |
| 35 | 0 | 489 | 0.0000 | 0.20\% | 0.22\% | 1.0 | 1.1 | 0\% | 0\% |
| 36 | 2 | 707 | 0.0028 | 0.22\% | 0.24\% | 1.6 | 1.7 | 129\% | 117\% |
| 37 | 1 | 991 | 0.0010 | 0.24\% | 0.26\% | 2.4 | 2.6 | 42\% | 38\% |
| 38 | 3 | 1,306 | 0.0023 | 0.26\% | 0.28\% | 3.4 | 3.7 | 88\% | 81\% |
| 39 | 4 | 1,687 | 0.0024 | 0.28\% | 0.31\% | 4.7 | 5.1 | 85\% | 78\% |
| 40 | 6 | 1,982 | 0.0030 | 0.30\% | 0.33\% | 5.9 | 6.5 | 101\% | 93\% |
| 41 | 8 | 2,322 | 0.0034 | 0.32\% | 0.35\% | 7.4 | 8.0 | 108\% | 100\% |
| 42 | 4 | 2,740 | 0.0015 | 0.34\% | 0.37\% | 9.3 | 10.0 | 43\% | 40\% |
| 43 | 10 | 3,170 | 0.0032 | 0.36\% | 0.39\% | 11.4 | 12.2 | 88\% | 82\% |
| 44 | 17 | 3,631 | 0.0047 | 0.38\% | 0.41\% | 13.8 | 14.8 | 123\% | 115\% |
| 45 | 10 | 4,129 | 0.0024 | 0.40\% | 0.43\% | 16.5 | 17.6 | 61\% | 57\% |
| 46 | 28 | 4,390 | 0.0064 | 0.42\% | 0.45\% | 18.4 | 19.7 | 152\% | 142\% |
| 47 | 29 | 4,525 | 0.0064 | 0.44\% | 0.47\% | 19.9 | 21.2 | 146\% | 137\% |
| 48 | 29 | 4,556 | 0.0064 | 0.46\% | 0.49\% | 21.0 | 22.2 | 138\% | 131\% |
| 49 | 25 | 4,591 | 0.0054 | 0.48\% | 0.51\% | 22.0 | 23.3 | 113\% | 107\% |
| 50 | 23 | 4,618 | 0.0050 | 0.50\% | 0.53\% | 23.1 | 24.4 | 100\% | 94\% |
| 51 | 39 | 4,680 | 0.0083 | 0.52\% | 0.55\% | 24.3 | 25.6 | 160\% | 152\% |
| 52 | 32 | 4,768 | 0.0067 | 0.54\% | 0.57\% | 25.7 | 27.1 | 124\% | 118\% |
| 53 | 31 | 4,678 | 0.0066 | 0.56\% | 0.59\% | 26.2 | 27.5 | 118\% | 113\% |
| 54 | 26 | 4,662 | 0.0056 | 0.58\% | 0.61\% | 27.0 | 28.4 | 96\% | 92\% |
| 55 | 33 | 4,565 | 0.0072 | 0.60\% | 0.63\% | 27.4 | 28.7 | 120\% | 115\% |
| 56 | 31 | 4,112 | 0.0075 | 0.60\% | 0.63\% | 24.7 | 25.9 | 126\% | 120\% |
| 57 | 27 | 3,787 | 0.0071 | 0.60\% | 0.63\% | 22.7 | 23.8 | 119\% | 113\% |
| 58 | 25 | 3,542 | 0.0071 | 0.60\% | 0.63\% | 21.3 | 22.2 | 118\% | 112\% |
| 59 | 28 | 3,236 | 0.0087 | 0.60\% | 0.63\% | 19.4 | 20.3 | 144\% | 138\% |
| 60 | 26 | 2,967 | 0.0088 | 0.60\% | 0.62\% | 17.8 | 18.5 | 146\% | 140\% |
| 61 | 16 | 2,704 | 0.0059 | 0.60\% | 0.63\% | 16.2 | 16.9 | 99\% | 95\% |
| 62 | 8 | 2,411 | 0.0033 | 0.60\% | 0.62\% | 14.5 | 15.1 | 55\% | 53\% |
| 63 | 6 | 1,817 | 0.0033 | 0.60\% | 0.62\% | 10.9 | 11.3 | 55\% | 53\% |
| 64 | 10 | 1,367 | 0.0073 | 0.60\% | 0.62\% | 8.2 | 8.5 | 122\% | 117\% |
| 65 | 2 | 1,023 | 0.0020 | 0.60\% | 0.63\% | 6.1 | 6.4 | 33\% | 31\% |
| 66 | 3 | 788 | 0.0038 | 0.60\% | 0.63\% | 4.7 | 4.9 | 63\% | 61\% |
| 67 | 4 | 570 | 0.0070 | 0.60\% | 0.62\% | 3.4 | 3.5 | 117\% | 113\% |
| 68 | 0 | 445 | 0.0000 | 0.60\% | 0.62\% | 2.7 | 2.8 | 0\% | 0\% |
| 69 | 1 | 366 | 0.0027 | 0.60\% | 0.61\% | 2.2 | 2.2 | 46\% | 45\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 552 | 99,332 |  |  |  | 488.9 | 515.6 | 113\% | 107\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN

|  | TABLE 10A GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected $(7) /(3)$ | Proposed (8) / (3) | Expected | Proposed | Expected (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 25-29 | 0 | 119 | 0.0000 | 0.10\% | 0.10\% | 0.1 | 0.1 | 0\% | 0\% |
| 30-34 | 2 | 732 | 0.0027 | 0.16\% | 0.16\% | 1.2 | 1.2 | 172\% | 172\% |
| 35-39 | 8 | 3,970 | 0.0020 | 0.25\% | 0.25\% | 10.0 | 10.0 | 80\% | 80\% |
| 40-44 | 26 | 11,233 | 0.0023 | 0.35\% | 0.35\% | 38.9 | 38.9 | 67\% | 67\% |
| 45-49 | 82 | 18,733 | 0.0044 | 0.44\% | 0.44\% | 82.7 | 82.7 | 99\% | 99\% |
| 50-54 | 101 | 20,334 | 0.0050 | 0.54\% | 0.54\% | 109.9 | 109.9 | 92\% | 92\% |
| 55-59 | 112 | 16,929 | 0.0066 | 0.60\% | 0.60\% | 101.6 | 101.6 | 110\% | 110\% |
| 60-64 | 53 | 10,112 | 0.0052 | 0.60\% | 0.60\% | 60.7 | 60.7 | 87\% | 87\% |
| 65-69 | 9 | 2,891 | 0.0031 | 0.60\% | 0.60\% | 17.3 | 17.3 | 52\% | 52\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 393 | 85,053 |  |  |  | 422.3 | 422.3 | 93\% | 93\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

| Age | TABLE 10B GROUPED |  |  | Assumed Probability $\quad \begin{gathered}\text { 4-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \quad(2) /(3) \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | $\begin{gathered} \text { Proposed } \\ (8) /(3) \\ \hline \end{gathered}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 25-29 | 1 | 7 | 0.1429 | 0.10\% | 0.14\% | 0.0 | 0.0 | 14286\% | 10204\% |
| 30-34 | 2 | 152 | 0.0132 | 0.16\% | 0.23\% | 0.2 | 0.3 | 818\% | 584\% |
| 35-39 | 2 | 1,210 | 0.0017 | 0.25\% | 0.35\% | 3.0 | 4.3 | 66\% | 47\% |
| 40-44 | 19 | 2,612 | 0.0073 | 0.34\% | 0.48\% | 9.0 | 12.6 | 211\% | 151\% |
| 45-49 | 39 | 3,458 | 0.0113 | 0.44\% | 0.61\% | 15.2 | 21.3 | 257\% | 183\% |
| 50-54 | 50 | 3,072 | 0.0163 | 0.54\% | 0.75\% | 16.5 | 23.2 | 302\% | 216\% |
| 55-59 | 32 | 2,313 | 0.0138 | 0.60\% | 0.84\% | 13.9 | 19.4 | 231\% | 165\% |
| 60-64 | 13 | 1,154 | 0.0113 | 0.60\% | 0.84\% | 6.9 | 9.7 | 188\% | 134\% |
| 65-69 | 1 | 301 | 0.0033 | 0.60\% | 0.84\% | 1.8 | 2.5 | 55\% | 40\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 159 | 14,279 |  |  |  | 66.6 | 93.3 | 239\% | 170\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT
ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

|  | TABLE 10C GROUPED |  |  | Assumed Probability $\quad \begin{gathered}\text { 4-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered} \quad \begin{aligned} & \text { Actual/Expected }\end{aligned}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | Actual Rate $(2) /(3)$ | Expected <br> (7) / (3) | Proposed $(8) /(3)$ | Expected | Proposed | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 25-29 | 1 | 126 | 0.0079 | 0.10\% | 0.10\% | 0.1 | 0.1 | 794\% | 776\% |
| 30-34 | 4 | 884 | 0.0045 | 0.16\% | 0.17\% | 1.4 | 1.5 | 284\% | 266\% |
| 35-39 | 10 | 5,180 | 0.0019 | 0.25\% | 0.28\% | 13.0 | 14.2 | 77\% | 70\% |
| 40-44 | 45 | 13,845 | 0.0033 | 0.35\% | 0.37\% | 47.9 | 51.5 | 94\% | 87\% |
| 45-49 | 121 | 22,191 | 0.0055 | 0.44\% | 0.47\% | 97.9 | 103.9 | 124\% | 116\% |
| 50-54 | 151 | 23,406 | 0.0065 | 0.54\% | 0.57\% | 126.4 | 133.0 | 119\% | 114\% |
| 55-59 | 144 | 19,242 | 0.0075 | 0.60\% | 0.63\% | 115.5 | 121.0 | 125\% | 119\% |
| 60-64 | 66 | 11,266 | 0.0059 | 0.60\% | 0.62\% | 67.6 | 70.4 | 98\% | 94\% |
| 65-69 | 10 | 3,192 | 0.0031 | 0.60\% | 0.62\% | 19.2 | 19.9 | 52\% | 50\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 552 | 99,332 |  |  |  | 488.9 | 515.6 | 113\% | 107\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT
ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS
MEN

|  | TABLE 10A |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Disabilities | Total <br> Exposed | Actual Rate (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 24 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 27 | 0 | 21 | 0.0000 | 0.10\% | 0.10\% | 0.0 | 0.0 | 0\% | 0\% |
| 28 | 0 | 57 | 0.0000 | 0.10\% | 0.10\% | 0.1 | 0.1 | 0\% | 0\% |
| 29 | 0 | 48 | 0.0000 | 0.10\% | 0.10\% | 0.0 | 0.0 | 0\% | 0\% |
| 30 | 0 | 49 | 0.0000 | 0.10\% | 0.10\% | 0.0 | 0.0 | 0\% | 0\% |
| 31 | 0 | 107 | 0.0000 | 0.12\% | 0.12\% | 0.1 | 0.1 | 0\% | 0\% |
| 32 | 0 | 231 | 0.0000 | 0.14\% | 0.14\% | 0.3 | 0.3 | 0\% | 0\% |
| 33 | 1 | 448 | 0.0022 | 0.16\% | 0.16\% | 0.7 | 0.7 | 140\% | 140\% |
| 34 | 2 | 732 | 0.0027 | 0.18\% | 0.18\% | 1.3 | 1.3 | 152\% | 152\% |
| 35 | 2 | 1,017 | 0.0020 | 0.20\% | 0.20\% | 2.0 | 2.0 | 98\% | 98\% |
| 36 | 4 | 1,395 | 0.0029 | 0.22\% | 0.22\% | 3.1 | 3.1 | 130\% | 130\% |
| 37 | 2 | 1,911 | 0.0010 | 0.24\% | 0.24\% | 4.6 | 4.6 | 44\% | 44\% |
| 38 | 5 | 2,507 | 0.0020 | 0.26\% | 0.26\% | 6.5 | 6.5 | 77\% | 77\% |
| 39 | 6 | 3,172 | 0.0019 | 0.28\% | 0.28\% | 8.9 | 8.9 | 68\% | 68\% |
| 40 | 9 | 3,787 | 0.0024 | 0.30\% | 0.30\% | 11.4 | 11.4 | 79\% | 79\% |
| 41 | 8 | 4,507 | 0.0018 | 0.32\% | 0.32\% | 14.4 | 14.4 | 55\% | 55\% |
| 42 | 11 | 5,140 | 0.0021 | 0.34\% | 0.34\% | 17.5 | 17.5 | 63\% | 63\% |
| 43 | 14 | 5,707 | 0.0025 | 0.36\% | 0.36\% | 20.5 | 20.5 | 68\% | 68\% |
| 44 | 23 | 6,209 | 0.0037 | 0.38\% | 0.38\% | 23.6 | 23.6 | 97\% | 97\% |
| 45 | 24 | 6,732 | 0.0036 | 0.40\% | 0.40\% | 26.9 | 26.9 | 89\% | 89\% |
| 46 | 29 | 7,038 | 0.0041 | 0.42\% | 0.42\% | 29.6 | 29.6 | 98\% | 98\% |
| 47 | 35 | 7,354 | 0.0048 | 0.44\% | 0.44\% | 32.4 | 32.4 | 108\% | 108\% |
| 48 | 43 | 7,593 | 0.0057 | 0.46\% | 0.46\% | 34.9 | 34.9 | 123\% | 123\% |
| 49 | 37 | 7,612 | 0.0049 | 0.48\% | 0.48\% | 36.5 | 36.5 | 101\% | 101\% |
| 50 | 32 | 7,649 | 0.0042 | 0.50\% | 0.50\% | 38.2 | 38.2 | 84\% | 84\% |
| 51 | 53 | 7,721 | 0.0069 | 0.52\% | 0.52\% | 40.1 | 40.1 | 132\% | 132\% |
| 52 | 39 | 7,781 | 0.0050 | 0.54\% | 0.54\% | 42.0 | 42.0 | 93\% | 93\% |
| 53 | 37 | 7,707 | 0.0048 | 0.56\% | 0.56\% | 43.2 | 43.2 | 86\% | 86\% |
| 54 | 33 | 7,673 | 0.0043 | 0.58\% | 0.58\% | 44.5 | 44.5 | 74\% | 74\% |
| 55 | 47 | 7,400 | 0.0064 | 0.60\% | 0.60\% | 44.4 | 44.4 | 106\% | 106\% |
| 56 | 46 | 6,629 | 0.0069 | 0.60\% | 0.60\% | 39.8 | 39.8 | 116\% | 116\% |
| 57 | 40 | 6,109 | 0.0065 | 0.60\% | 0.60\% | 36.7 | 36.7 | 109\% | 109\% |
| 58 | 29 | 5,637 | 0.0051 | 0.60\% | 0.60\% | 33.8 | 33.8 | 86\% | 86\% |
| 59 | 28 | 5,113 | 0.0055 | 0.60\% | 0.60\% | 30.7 | 30.7 | 91\% | 91\% |
| 60 | 33 | 4,655 | 0.0071 | 0.60\% | 0.60\% | 27.9 | 27.9 | 118\% | 118\% |
| 61 | 26 | 4,160 | 0.0063 | 0.60\% | 0.60\% | 25.0 | 25.0 | 104\% | 104\% |
| 62 | 15 | 3,679 | 0.0041 | 0.60\% | 0.60\% | 22.1 | 22.1 | 68\% | 68\% |
| 63 | 9 | 2,784 | 0.0032 | 0.60\% | 0.60\% | 16.7 | 16.7 | 54\% | 54\% |
| 64 | 12 | 2,150 | 0.0056 | 0.60\% | 0.60\% | 12.9 | 12.9 | 93\% | 93\% |
| 65 | 3 | 1,634 | 0.0018 | 0.60\% | 0.60\% | 9.8 | 9.8 | 31\% | 31\% |
| 66 | 6 | 1,284 | 0.0047 | 0.60\% | 0.60\% | 7.7 | 7.7 | 78\% | 78\% |
| 67 | 5 | 927 | 0.0054 | 0.60\% | 0.60\% | 5.6 | 5.6 | 90\% | 90\% |
| 68 | 0 | 710 | 0.0000 | 0.60\% | 0.60\% | 4.3 | 4.3 | 0\% | 0\% |
| 69 | 3 | 558 | 0.0054 | 0.60\% | 0.60\% | 3.3 | 3.3 | 90\% | 90\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 751 | 165,334 |  |  |  | 804.1 | 804.1 | 93\% | 93\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

|  | TABLE 10B |  |  | Assumed | bability | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected $(2) /(7)$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.10\% | 0.14\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.10\% | 0.14\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.10\% | 0.14\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 0 | N/A | 0.10\% | 0.14\% | 0 | 0 | 0\% | 0\% |
| 24 | 0 | 0 | N/A | 0.10\% | 0.14\% | 0 | 0 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.10\% | 0.14\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 0 | N/A | 0.10\% | 0.14\% | 0 | 0 | 0\% | 0\% |
| 27 | 0 | 1 | 0.0000 | 0.10\% | 0.14\% | 0.0 | 0.0 | 0\% | 0\% |
| 28 | 1 | 4 | 0.2500 | 0.10\% | 0.14\% | 0.0 | 0.0 | 25000\% | 17857\% |
| 29 | 0 | 3 | 0.0000 | 0.10\% | 0.14\% | 0.0 | 0.0 | 0\% | 0\% |
| 30 | 0 | 12 | 0.0000 | 0.10\% | 0.14\% | 0.0 | 0.0 | 0\% | 0\% |
| 31 | 0 | 21 | 0.0000 | 0.12\% | 0.17\% | 0.0 | 0.0 | 0\% | 0\% |
| 32 | 0 | 57 | 0.0000 | 0.14\% | 0.20\% | 0.1 | 0.1 | 0\% | 0\% |
| 33 | 2 | 102 | 0.0196 | 0.16\% | 0.22\% | 0.2 | 0.2 | 1225\% | 875\% |
| 34 | 1 | 184 | 0.0054 | 0.18\% | 0.25\% | 0.3 | 0.5 | 302\% | 216\% |
| 35 | 0 | 290 | 0.0000 | 0.20\% | 0.28\% | 0.6 | 0.8 | 0\% | 0\% |
| 36 | 0 | 404 | 0.0000 | 0.22\% | 0.31\% | 0.9 | 1.2 | 0\% | 0\% |
| 37 | 3 | 526 | 0.0057 | 0.24\% | 0.34\% | 1.3 | 1.8 | 238\% | 170\% |
| 38 | 2 | 644 | 0.0031 | 0.26\% | 0.36\% | 1.7 | 2.3 | 119\% | 85\% |
| 39 | 3 | 795 | 0.0038 | 0.28\% | 0.39\% | 2.2 | 3.1 | 135\% | 96\% |
| 40 | 3 | 921 | 0.0033 | 0.30\% | 0.42\% | 2.8 | 3.9 | 109\% | 78\% |
| 41 | 10 | 1,020 | 0.0098 | 0.32\% | 0.45\% | 3.3 | 4.6 | 306\% | 219\% |
| 42 | 3 | 1,093 | 0.0027 | 0.34\% | 0.48\% | 3.7 | 5.2 | 81\% | 58\% |
| 43 | 6 | 1,179 | 0.0051 | 0.36\% | 0.50\% | 4.2 | 5.9 | 141\% | 101\% |
| 44 | 13 | 1,238 | 0.0105 | 0.38\% | 0.53\% | 4.7 | 6.6 | 276\% | 197\% |
| 45 | 9 | 1,292 | 0.0070 | 0.40\% | 0.56\% | 5.2 | 7.2 | 174\% | 124\% |
| 46 | 15 | 1,315 | 0.0114 | 0.42\% | 0.59\% | 5.5 | 7.7 | 272\% | 194\% |
| 47 | 13 | 1,279 | 0.0102 | 0.44\% | 0.62\% | 5.6 | 7.9 | 231\% | 165\% |
| 48 | 10 | 1,217 | 0.0082 | 0.46\% | 0.64\% | 5.6 | 7.8 | 179\% | 128\% |
| 49 | 14 | 1,203 | 0.0116 | 0.48\% | 0.67\% | 5.8 | 8.1 | 242\% | 173\% |
| 50 | 13 | 1,204 | 0.0108 | 0.50\% | 0.70\% | 6.0 | 8.4 | 216\% | 154\% |
| 51 | 16 | 1,181 | 0.0135 | 0.52\% | 0.73\% | 6.1 | 8.6 | 261\% | 186\% |
| 52 | 19 | 1,182 | 0.0161 | 0.54\% | 0.76\% | 6.4 | 8.9 | 298\% | 213\% |
| 53 | 14 | 1,134 | 0.0123 | 0.56\% | 0.78\% | 6.4 | 8.9 | 220\% | 157\% |
| 54 | 14 | 1,087 | 0.0129 | 0.58\% | 0.81\% | 6.3 | 8.8 | 222\% | 159\% |
| 55 | 14 | 1,040 | 0.0135 | 0.60\% | 0.84\% | 6.2 | 8.7 | 224\% | 160\% |
| 56 | 9 | 924 | 0.0097 | 0.60\% | 0.84\% | 5.5 | 7.8 | 162\% | 116\% |
| 57 | 13 | 824 | 0.0158 | 0.60\% | 0.84\% | 4.9 | 6.9 | 263\% | 188\% |
| 58 | 12 | 743 | 0.0162 | 0.60\% | 0.84\% | 4.5 | 6.2 | 269\% | 192\% |
| 59 | 14 | 647 | 0.0216 | 0.60\% | 0.84\% | 3.9 | 5.4 | 361\% | 258\% |
| 60 | 12 | 562 | 0.0214 | 0.60\% | 0.84\% | 3.4 | 4.7 | 356\% | 254\% |
| 61 | 3 | 510 | 0.0059 | 0.60\% | 0.84\% | 3.1 | 4.3 | 98\% | 70\% |
| 62 | 3 | 447 | 0.0067 | 0.60\% | 0.84\% | 2.7 | 3.8 | 112\% | 80\% |
| 63 | 2 | 317 | 0.0063 | 0.60\% | 0.84\% | 1.9 | 2.7 | 105\% | 75\% |
| 64 | 1 | 233 | 0.0043 | 0.60\% | 0.84\% | 1.4 | 2.0 | 72\% | 51\% |
| 65 | 2 | 184 | 0.0109 | 0.60\% | 0.84\% | 1.1 | 1.5 | 181\% | 129\% |
| 66 | 0 | 136 | 0.0000 | 0.60\% | 0.84\% | 0.8 | 1.1 | 0\% | 0\% |
| 67 | 0 | 88 | 0.0000 | 0.60\% | 0.84\% | 0.5 | 0.7 | 0\% | 0\% |
| 68 | 0 | 59 | 0.0000 | 0.60\% | 0.84\% | 0.4 | 0.5 | 0\% | 0\% |
| 69 | 0 | 38 | 0.0000 | 0.60\% | 0.84\% | 0.2 | 0.3 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 269 | 27,340 |  |  |  | 125.3 | 175.5 | 215\% | 153\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

|  | TABLE 10C |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 24 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 27 | 0 | 22 | 0.0000 | 0.10\% | 0.10\% | 0.0 | 0.0 | 0\% | 0\% |
| 28 | 1 | 61 | 0.0164 | 0.10\% | 0.10\% | 0.1 | 0.1 | 1639\% | 1597\% |
| 29 | 0 | 51 | 0.0000 | 0.10\% | 0.10\% | 0.1 | 0.1 | 0\% | 0\% |
| 30 | 0 | 61 | 0.0000 | 0.10\% | 0.11\% | 0.1 | 0.1 | 0\% | 0\% |
| 31 | 0 | 128 | 0.0000 | 0.12\% | 0.13\% | 0.2 | 0.2 | 0\% | 0\% |
| 32 | 0 | 288 | 0.0000 | 0.14\% | 0.15\% | 0.4 | 0.4 | 0\% | 0\% |
| 33 | 3 | 550 | 0.0055 | 0.16\% | 0.17\% | 0.9 | 0.9 | 341\% | 317\% |
| 34 | 3 | 916 | 0.0033 | 0.18\% | 0.19\% | 1.6 | 1.8 | 182\% | 168\% |
| 35 | 2 | 1,307 | 0.0015 | 0.20\% | 0.22\% | 2.6 | 2.8 | 77\% | 70\% |
| 36 | 4 | 1,799 | 0.0022 | 0.22\% | 0.24\% | 4.0 | 4.3 | 101\% | 93\% |
| 37 | 5 | 2,437 | 0.0021 | 0.24\% | 0.26\% | 5.8 | 6.4 | 85\% | 79\% |
| 38 | 7 | 3,151 | 0.0022 | 0.26\% | 0.28\% | 8.2 | 8.9 | 85\% | 79\% |
| 39 | 9 | 3,967 | 0.0023 | 0.28\% | 0.30\% | 11.1 | 12.0 | 81\% | 75\% |
| 40 | 12 | 4,708 | 0.0025 | 0.30\% | 0.32\% | 14.1 | 15.2 | 85\% | 79\% |
| 41 | 18 | 5,527 | 0.0033 | 0.32\% | 0.34\% | 17.7 | 19.0 | 102\% | 95\% |
| 42 | 14 | 6,233 | 0.0022 | 0.34\% | 0.36\% | 21.2 | 22.7 | 66\% | 62\% |
| 43 | 20 | 6,886 | 0.0029 | 0.36\% | 0.38\% | 24.8 | 26.5 | 81\% | 76\% |
| 44 | 36 | 7,447 | 0.0048 | 0.38\% | 0.41\% | 28.3 | 30.2 | 127\% | 119\% |
| 45 | 33 | 8,024 | 0.0041 | 0.40\% | 0.43\% | 32.1 | 34.2 | 103\% | 97\% |
| 46 | 44 | 8,353 | 0.0053 | 0.42\% | 0.45\% | 35.1 | 37.3 | 125\% | 118\% |
| 47 | 48 | 8,633 | 0.0056 | 0.44\% | 0.47\% | 38.0 | 40.2 | 126\% | 119\% |
| 48 | 53 | 8,810 | 0.0060 | 0.46\% | 0.49\% | 40.5 | 42.8 | 131\% | 124\% |
| 49 | 51 | 8,815 | 0.0058 | 0.48\% | 0.51\% | 42.3 | 44.6 | 121\% | 114\% |
| 50 | 45 | 8,853 | 0.0051 | 0.50\% | 0.53\% | 44.3 | 46.7 | 102\% | 96\% |
| 51 | 69 | 8,902 | 0.0078 | 0.52\% | 0.55\% | 46.3 | 48.7 | 149\% | 142\% |
| 52 | 58 | 8,963 | 0.0065 | 0.54\% | 0.57\% | 48.4 | 51.0 | 120\% | 114\% |
| 53 | 51 | 8,841 | 0.0058 | 0.56\% | 0.59\% | 49.5 | 52.0 | 103\% | 98\% |
| 54 | 47 | 8,760 | 0.0054 | 0.58\% | 0.61\% | 50.8 | 53.3 | 93\% | 88\% |
| 55 | 61 | 8,440 | 0.0072 | 0.60\% | 0.63\% | 50.6 | 53.1 | 120\% | 115\% |
| 56 | 55 | 7,553 | 0.0073 | 0.60\% | 0.63\% | 45.3 | 47.5 | 121\% | 116\% |
| 57 | 53 | 6,933 | 0.0076 | 0.60\% | 0.63\% | 41.6 | 43.6 | 127\% | 122\% |
| 58 | 41 | 6,380 | 0.0064 | 0.60\% | 0.63\% | 38.3 | 40.1 | 107\% | 102\% |
| 59 | 42 | 5,760 | 0.0073 | 0.60\% | 0.63\% | 34.6 | 36.1 | 122\% | 116\% |
| 60 | 45 | 5,217 | 0.0086 | 0.60\% | 0.63\% | 31.3 | 32.7 | 144\% | 138\% |
| 61 | 29 | 4,670 | 0.0062 | 0.60\% | 0.63\% | 28.0 | 29.2 | 103\% | 99\% |
| 62 | 18 | 4,126 | 0.0044 | 0.60\% | 0.63\% | 24.8 | 25.8 | 73\% | 70\% |
| 63 | 11 | 3,101 | 0.0035 | 0.60\% | 0.62\% | 18.6 | 19.4 | 59\% | 57\% |
| 64 | 13 | 2,383 | 0.0055 | 0.60\% | 0.62\% | 14.3 | 14.9 | 91\% | 87\% |
| 65 | 5 | 1,818 | 0.0028 | 0.60\% | 0.62\% | 10.9 | 11.3 | 46\% | 44\% |
| 66 | 6 | 1,420 | 0.0042 | 0.60\% | 0.62\% | 8.5 | 8.8 | 70\% | 68\% |
| 67 | 5 | 1,015 | 0.0049 | 0.60\% | 0.62\% | 6.1 | 6.3 | 82\% | 79\% |
| 68 | 0 | 769 | 0.0000 | 0.60\% | 0.62\% | 4.6 | 4.8 | 0\% | 0\% |
| 69 | 3 | 596 | 0.0050 | 0.60\% | 0.62\% | 3.6 | 3.7 | 84\% | 82\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 1,020 | 192,674 |  |  |  | 929.5 | 979.6 | 110\% | 104\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN

|  | TABLE 10A GROUPED |  |  | Assumed Probability |  | 8-YEAR PERIOD ENDING 6/30/2011Expected Disabilities |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | Actual Rate <br> (2) / (3) | Expected $(7) /(3)$ | $\begin{gathered} \text { Proposed } \\ (8) /(3) \\ \hline \end{gathered}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 25-29 | 0 | 126 | 0.0000 | 0.10\% | 0.10\% | 0.1 | 0.1 | 0\% | 0\% |
| 30-34 | 3 | 1,567 | 0.0019 | 0.16\% | 0.16\% | 2.5 | 2.5 | 118\% | 118\% |
| 35-39 | 19 | 10,002 | 0.0019 | 0.25\% | 0.25\% | 25.1 | 25.1 | 76\% | 76\% |
| 40-44 | 65 | 25,350 | 0.0026 | 0.34\% | 0.34\% | 87.4 | 87.4 | 74\% | 74\% |
| 45-49 | 168 | 36,329 | 0.0046 | 0.44\% | 0.44\% | 160.3 | 160.3 | 105\% | 105\% |
| 50-54 | 194 | 38,531 | 0.0050 | 0.54\% | 0.54\% | 208.1 | 208.1 | 93\% | 93\% |
| 55-59 | 190 | 30,888 | 0.0062 | 0.60\% | 0.60\% | 185.3 | 185.3 | 103\% | 103\% |
| 60-64 | 95 | 17,428 | 0.0055 | 0.60\% | 0.60\% | 104.6 | 104.6 | 91\% | 91\% |
| 65-69 | 17 | 5,113 | 0.0033 | 0.60\% | 0.60\% | 30.7 | 30.7 | 55\% | 55\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 751 | 165,334 |  |  |  | 804.1 | 804.1 | 93\% | 93\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

|  | TABLE 10B GROUPED |  |  | Assumed Probability |  | 8-YEAR PERIOD ENDING 6/30/2011Expected Disabilities |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2)/(3) } \\ & \hline \end{aligned}$ | $\begin{gathered} \text { Expected } \\ (7) /(3) \\ \hline \end{gathered}$ | Proposed $(8) /(3)$ | Expected | Proposed | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 25-29 | 1 | 8 | 0.1250 | 0.10\% | 0.14\% | 0.0 | 0.0 | 12500\% | 8929\% |
| 30-34 | 3 | 376 | 0.0080 | 0.16\% | 0.23\% | 0.6 | 0.9 | 491\% | 350\% |
| 35-39 | 8 | 2,659 | 0.0030 | 0.25\% | 0.35\% | 6.6 | 9.3 | 121\% | 86\% |
| 40-44 | 35 | 5,451 | 0.0064 | 0.34\% | 0.48\% | 18.7 | 26.2 | 187\% | 134\% |
| 45-49 | 61 | 6,306 | 0.0097 | 0.44\% | 0.61\% | 27.7 | 38.8 | 220\% | 157\% |
| 50-54 | 76 | 5,788 | 0.0131 | 0.54\% | 0.75\% | 31.2 | 43.7 | 244\% | 174\% |
| 55-59 | 62 | 4,178 | 0.0148 | 0.60\% | 0.84\% | 25.1 | 35.1 | 247\% | 177\% |
| 60-64 | 21 | 2,069 | 0.0101 | 0.60\% | 0.84\% | 12.4 | 17.4 | 169\% | 121\% |
| 65-69 | 2 | 505 | 0.0040 | 0.60\% | 0.84\% | 3.0 | 4.2 | 66\% | 47\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 269 | 27,340 |  |  |  | 125.3 | 175.5 | 215\% | 153\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT
ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Age | TABLE 10C GROUPED |  |  | Assumed Probability |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Disabilities | Total Exposed | Actual Rate <br> (2) / (3) | Expected $(7) /(3)$ | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 25-29 | 1 | 134 | 0.0075 | 0.10\% | 0.10\% | 0.1 | 0.1 | 746\% | 729\% |
| 30-34 | 6 | 1,943 | 0.0031 | 0.16\% | 0.17\% | 3.1 | 3.4 | 191\% | 177\% |
| 35-39 | 27 | 12,661 | 0.0021 | 0.25\% | 0.27\% | 31.7 | 34.4 | 85\% | 79\% |
| 40-44 | 100 | 30,801 | 0.0032 | 0.34\% | 0.37\% | 106.1 | 113.6 | 94\% | 88\% |
| 45-49 | 229 | 42,635 | 0.0054 | 0.44\% | 0.47\% | 188.0 | 199.1 | 122\% | 115\% |
| 50-54 | 270 | 44,319 | 0.0061 | 0.54\% | 0.57\% | 239.3 | 251.8 | 113\% | 107\% |
| 55-59 | 252 | 35,066 | 0.0072 | 0.60\% | 0.63\% | 210.4 | 220.4 | 120\% | 114\% |
| 60-64 | 116 | 19,497 | 0.0059 | 0.60\% | 0.63\% | 117.0 | 121.9 | 99\% | 95\% |
| 65-69 | 19 | 5,618 | 0.0034 | 0.60\% | 0.62\% | 33.7 | 34.9 | 56\% | 54\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 1,020 | 192,674 |  |  |  | 929.5 | 979.6 | 110\% | 104\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS

## MEN AND WOMEN

| Plan <br> Year | TABLE 10D |  |  | 10-YEAR PER | ENDING 6/3 Disabi | Disability Rate |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending <br> June 30, | Life Years Exposed | Actual Disabilities | Expected Disabilities | Actual / Expected | $\begin{aligned} & \text { Actual } \\ & \text { (3) / (2) } \\ & \hline \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 23,880 | 140 | 95.5 | 147\% | 0.59\% | 0.40\% |
| 2005 | 23,116 | 76 | 93.9 | 81\% | 0.33\% | 0.41\% |
| 2006 | 23,163 | 133 | 96.2 | 138\% | 0.57\% | 0.42\% |
| 2007 | 23,179 | 119 | 97.3 | 122\% | 0.51\% | 0.42\% |
| 2008 | 23,539 | 112 | 99.8 | 112\% | 0.48\% | 0.42\% |
| 2009 | 24,770 | 123 | 105.3 | 117\% | 0.50\% | 0.43\% |
| 2010 | 25,126 | 139 | 108.0 | 129\% | 0.55\% | 0.43\% |
| 2011 | 25,897 | 181 | 111.8 | 162\% | 0.70\% | 0.43\% |
| 2012 | 25,259 | 112 | 110.3 | 102\% | 0.44\% | 0.44\% |
| 2013 | 24,714 | 51 | 109.1 | 47\% | 0.21\% | 0.44\% |
| Total | 242,643 | 1,186 | 1,027.4 | 115\% | 0.49\% | 0.42\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT aCCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN

| Age | TABLE 11A |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 60 | 0.0000 | 0.02\% | 0.01\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 78 | 0.0000 | 0.02\% | 0.01\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 77 | 0.0000 | 0.02\% | 0.01\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 102 | 0.0000 | 0.02\% | 0.01\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 157 | 0.0000 | 0.02\% | 0.01\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 266 | 0.0000 | 0.02\% | 0.01\% | 0.1 | 0.0 | 0\% | 0\% |
| 26 | 0 | 354 | 0.0000 | 0.02\% | 0.01\% | 0.1 | 0.0 | 0\% | 0\% |
| 27 | 0 | 449 | 0.0000 | 0.02\% | 0.01\% | 0.1 | 0.0 | 0\% | 0\% |
| 28 | 0 | 587 | 0.0000 | 0.02\% | 0.01\% | 0.1 | 0.1 | 0\% | 0\% |
| 29 | 0 | 704 | 0.0000 | 0.02\% | 0.01\% | 0.1 | 0.1 | 0\% | 0\% |
| 30 | 0 | 826 | 0.0000 | 0.02\% | 0.01\% | 0.2 | 0.1 | 0\% | 0\% |
| 31 | 0 | 991 | 0.0000 | 0.02\% | 0.01\% | 0.2 | 0.1 | 0\% | 0\% |
| 32 | 0 | 1,130 | 0.0000 | 0.02\% | 0.01\% | 0.2 | 0.1 | 0\% | 0\% |
| 33 | 0 | 1,298 | 0.0000 | 0.02\% | 0.01\% | 0.3 | 0.1 | 0\% | 0\% |
| 34 | 0 | 1,441 | 0.0000 | 0.02\% | 0.01\% | 0.3 | 0.1 | 0\% | 0\% |
| 35 | 0 | 1,575 | 0.0000 | 0.02\% | 0.01\% | 0.3 | 0.2 | 0\% | 0\% |
| 36 | 0 | 1,774 | 0.0000 | 0.02\% | 0.01\% | 0.4 | 0.2 | 0\% | 0\% |
| 37 | 0 | 2,024 | 0.0000 | 0.02\% | 0.01\% | 0.4 | 0.2 | 0\% | 0\% |
| 38 | 0 | 2,368 | 0.0000 | 0.02\% | 0.01\% | 0.5 | 0.2 | 0\% | 0\% |
| 39 | 0 | 2,687 | 0.0000 | 0.02\% | 0.01\% | 0.5 | 0.3 | 0\% | 0\% |
| 40 | 0 | 2,989 | 0.0000 | 0.02\% | 0.01\% | 0.6 | 0.3 | 0\% | 0\% |
| 41 | 0 | 3,340 | 0.0000 | 0.02\% | 0.01\% | 0.7 | 0.3 | 0\% | 0\% |
| 42 | 0 | 3,704 | 0.0000 | 0.02\% | 0.01\% | 0.7 | 0.4 | 0\% | 0\% |
| 43 | 0 | 4,114 | 0.0000 | 0.02\% | 0.01\% | 0.8 | 0.4 | 0\% | 0\% |
| 44 | 0 | 4,481 | 0.0000 | 0.02\% | 0.01\% | 0.9 | 0.4 | 0\% | 0\% |
| 45 | 0 | 4,871 | 0.0000 | 0.02\% | 0.01\% | 1.0 | 0.5 | 0\% | 0\% |
| 46 | 0 | 5,041 | 0.0000 | 0.02\% | 0.01\% | 1.0 | 0.5 | 0\% | 0\% |
| 47 | 0 | 5,121 | 0.0000 | 0.02\% | 0.01\% | 1.0 | 0.5 | 0\% | 0\% |
| 48 | 0 | 5,161 | 0.0000 | 0.02\% | 0.01\% | 1.0 | 0.5 | 0\% | 0\% |
| 49 | 0 | 5,142 | 0.0000 | 0.02\% | 0.01\% | 1.0 | 0.5 | 0\% | 0\% |
| 50 | 0 | 5,087 | 0.0000 | 0.02\% | 0.01\% | 1.0 | 0.5 | 0\% | 0\% |
| 51 | 1 | 5,159 | 0.0002 | 0.02\% | 0.01\% | 1.0 | 0.5 | 97\% | 194\% |
| 52 | 0 | 5,188 | 0.0000 | 0.02\% | 0.01\% | 1.0 | 0.5 | 0\% | 0\% |
| 53 | 0 | 5,061 | 0.0000 | 0.02\% | 0.01\% | 1.0 | 0.5 | 0\% | 0\% |
| 54 | 1 | 4,961 | 0.0002 | 0.02\% | 0.01\% | 1.0 | 0.5 | 101\% | 202\% |
| 55 | 0 | 4,792 | 0.0000 | 0.02\% | 0.01\% | 1.0 | 0.5 | 0\% | 0\% |
| 56 | 0 | 4,283 | 0.0000 | 0.02\% | 0.01\% | 0.9 | 0.4 | 0\% | 0\% |
| 57 | 0 | 3,964 | 0.0000 | 0.02\% | 0.01\% | 0.8 | 0.4 | 0\% | 0\% |
| 58 | 0 | 3,738 | 0.0000 | 0.02\% | 0.01\% | 0.7 | 0.4 | 0\% | 0\% |
| 59 | 0 | 3,418 | 0.0000 | 0.02\% | 0.01\% | 0.7 | 0.3 | 0\% | 0\% |
| 60 | 0 | 3,127 | 0.0000 | 0.02\% | 0.01\% | 0.6 | 0.3 | 0\% | 0\% |
| 61 | 0 | 2,854 | 0.0000 | 0.02\% | 0.01\% | 0.6 | 0.3 | 0\% | 0\% |
| 62 | 0 | 2,500 | 0.0000 | 0.02\% | 0.01\% | 0.5 | 0.3 | 0\% | 0\% |
| 63 | 0 | 1,890 | 0.0000 | 0.02\% | 0.01\% | 0.4 | 0.2 | 0\% | 0\% |
| 64 | 0 | 1,436 | 0.0000 | 0.02\% | 0.01\% | 0.3 | 0.1 | 0\% | 0\% |
| 65 | 0 | 1,037 | 0.0000 | 0.02\% | 0.01\% | 0.2 | 0.1 | 0\% | 0\% |
| 66 | 0 | 795 | 0.0000 | 0.02\% | 0.01\% | 0.2 | 0.1 | 0\% | 0\% |
| 67 | 0 | 584 | 0.0000 | 0.02\% | 0.01\% | 0.1 | 0.1 | 0\% | 0\% |
| 68 | 0 | 475 | 0.0000 | 0.02\% | 0.01\% | 0.1 | 0.0 | 0\% | 0\% |
| 69 | 0 | 387 | 0.0000 | 0.02\% | 0.01\% | 0.1 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 32 | 0.0000 | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 2 | 123,680 |  |  |  | 24.7 | 12.4 | 8\% | 16\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT accidental disability experience of active members WOMEN

|  | TABLE 11B |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } /(\mathbf{3}) \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 6 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 8 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 8 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 27 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 42 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 67 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 26 | 0 | 86 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 119 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 28 | 0 | 148 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 29 | 0 | 188 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 30 | 0 | 219 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 31 | 0 | 266 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 32 | 0 | 291 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 33 | 0 | 320 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 34 | 0 | 365 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 35 | 0 | 396 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 36 | 0 | 473 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 37 | 0 | 580 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 38 | 0 | 633 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 39 | 0 | 717 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 40 | 0 | 754 | 0.0000 | 0.02\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 41 | 0 | 760 | 0.0000 | 0.02\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 42 | 0 | 805 | 0.0000 | 0.02\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 43 | 0 | 873 | 0.0000 | 0.02\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 44 | 0 | 950 | 0.0000 | 0.02\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 45 | 0 | 996 | 0.0000 | 0.02\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 46 | 0 | 1,009 | 0.0000 | 0.02\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 47 | 0 | 978 | 0.0000 | 0.02\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 48 | 0 | 909 | 0.0000 | 0.02\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 49 | 0 | 872 | 0.0000 | 0.02\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 50 | 0 | 855 | 0.0000 | 0.02\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 51 | 0 | 796 | 0.0000 | 0.02\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 52 | 0 | 750 | 0.0000 | 0.02\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 53 | 0 | 710 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 54 | 0 | 658 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 55 | 0 | 633 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 56 | 0 | 579 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 57 | 0 | 514 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 58 | 0 | 462 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 59 | 0 | 407 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 60 | 0 | 348 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 61 | 0 | 320 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 62 | 1 | 277 | 0.0036 | 0.02\% | 0.02\% | 0.1 | 0.1 | 1805\% | 1805\% |
| 63 | 0 | 200 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 64 | 0 | 153 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 0 | 121 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 90 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 54 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 36 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 22 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 2 | 0.0000 | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 1 | 21,852 |  |  |  | 4.4 | 4.4 | 23\% | 23\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

|  | TABLE 11C |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 66 | 0.0000 | 0.02\% | 0.01\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 86 | 0.0000 | 0.02\% | 0.01\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 85 | 0.0000 | 0.02\% | 0.01\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 129 | 0.0000 | 0.02\% | 0.01\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 199 | 0.0000 | 0.02\% | 0.01\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 333 | 0.0000 | 0.02\% | 0.01\% | 0.1 | 0.0 | 0\% | 0\% |
| 26 | 0 | 440 | 0.0000 | 0.02\% | 0.01\% | 0.1 | 0.1 | 0\% | 0\% |
| 27 | 0 | 568 | 0.0000 | 0.02\% | 0.01\% | 0.1 | 0.1 | 0\% | 0\% |
| 28 | 0 | 735 | 0.0000 | 0.02\% | 0.01\% | 0.1 | 0.1 | 0\% | 0\% |
| 29 | 0 | 892 | 0.0000 | 0.02\% | 0.01\% | 0.2 | 0.1 | 0\% | 0\% |
| 30 | 0 | 1,045 | 0.0000 | 0.02\% | 0.01\% | 0.2 | 0.1 | 0\% | 0\% |
| 31 | 0 | 1,257 | 0.0000 | 0.02\% | 0.01\% | 0.3 | 0.2 | 0\% | 0\% |
| 32 | 0 | 1,421 | 0.0000 | 0.02\% | 0.01\% | 0.3 | 0.2 | 0\% | 0\% |
| 33 | 0 | 1,618 | 0.0000 | 0.02\% | 0.01\% | 0.3 | 0.2 | 0\% | 0\% |
| 34 | 0 | 1,806 | 0.0000 | 0.02\% | 0.01\% | 0.4 | 0.2 | 0\% | 0\% |
| 35 | 0 | 1,971 | 0.0000 | 0.02\% | 0.01\% | 0.4 | 0.2 | 0\% | 0\% |
| 36 | 0 | 2,247 | 0.0000 | 0.02\% | 0.01\% | 0.4 | 0.3 | 0\% | 0\% |
| 37 | 0 | 2,604 | 0.0000 | 0.02\% | 0.01\% | 0.5 | 0.3 | 0\% | 0\% |
| 38 | 0 | 3,001 | 0.0000 | 0.02\% | 0.01\% | 0.6 | 0.4 | 0\% | 0\% |
| 39 | 0 | 3,404 | 0.0000 | 0.02\% | 0.01\% | 0.7 | 0.4 | 0\% | 0\% |
| 40 | 0 | 3,743 | 0.0000 | 0.02\% | 0.01\% | 0.7 | 0.4 | 0\% | 0\% |
| 41 | 0 | 4,100 | 0.0000 | 0.02\% | 0.01\% | 0.8 | 0.5 | 0\% | 0\% |
| 42 | 0 | 4,509 | 0.0000 | 0.02\% | 0.01\% | 0.9 | 0.5 | 0\% | 0\% |
| 43 | 0 | 4,987 | 0.0000 | 0.02\% | 0.01\% | 1.0 | 0.6 | 0\% | 0\% |
| 44 | 0 | 5,431 | 0.0000 | 0.02\% | 0.01\% | 1.1 | 0.6 | 0\% | 0\% |
| 45 | 0 | 5,867 | 0.0000 | 0.02\% | 0.01\% | 1.2 | 0.7 | 0\% | 0\% |
| 46 | 0 | 6,050 | 0.0000 | 0.02\% | 0.01\% | 1.2 | 0.7 | 0\% | 0\% |
| 47 | 0 | 6,099 | 0.0000 | 0.02\% | 0.01\% | 1.2 | 0.7 | 0\% | 0\% |
| 48 | 0 | 6,070 | 0.0000 | 0.02\% | 0.01\% | 1.2 | 0.7 | 0\% | 0\% |
| 49 | 0 | 6,014 | 0.0000 | 0.02\% | 0.01\% | 1.2 | 0.7 | 0\% | 0\% |
| 50 | 0 | 5,942 | 0.0000 | 0.02\% | 0.01\% | 1.2 | 0.7 | 0\% | 0\% |
| 51 | 1 | 5,955 | 0.0002 | 0.02\% | 0.01\% | 1.2 | 0.7 | 84\% | 148\% |
| 52 | 0 | 5,938 | 0.0000 | 0.02\% | 0.01\% | 1.2 | 0.7 | 0\% | 0\% |
| 53 | 0 | 5,771 | 0.0000 | 0.02\% | 0.01\% | 1.2 | 0.6 | 0\% | 0\% |
| 54 | 1 | 5,619 | 0.0002 | 0.02\% | 0.01\% | 1.1 | 0.6 | 89\% | 159\% |
| 55 | 0 | 5,425 | 0.0000 | 0.02\% | 0.01\% | 1.1 | 0.6 | 0\% | 0\% |
| 56 | 0 | 4,862 | 0.0000 | 0.02\% | 0.01\% | 1.0 | 0.5 | 0\% | 0\% |
| 57 | 0 | 4,478 | 0.0000 | 0.02\% | 0.01\% | 0.9 | 0.5 | 0\% | 0\% |
| 58 | 0 | 4,200 | 0.0000 | 0.02\% | 0.01\% | 0.8 | 0.5 | 0\% | 0\% |
| 59 | 0 | 3,825 | 0.0000 | 0.02\% | 0.01\% | 0.8 | 0.4 | 0\% | 0\% |
| 60 | 0 | 3,475 | 0.0000 | 0.02\% | 0.01\% | 0.7 | 0.4 | 0\% | 0\% |
| 61 | 0 | 3,174 | 0.0000 | 0.02\% | 0.01\% | 0.6 | 0.3 | 0\% | 0\% |
| 62 | 1 | 2,777 | 0.0004 | 0.02\% | 0.01\% | 0.6 | 0.3 | 180\% | 327\% |
| 63 | 0 | 2,090 | 0.0000 | 0.02\% | 0.01\% | 0.4 | 0.2 | 0\% | 0\% |
| 64 | 0 | 1,589 | 0.0000 | 0.02\% | 0.01\% | 0.3 | 0.2 | 0\% | 0\% |
| 65 | 0 | 1,158 | 0.0000 | 0.02\% | 0.01\% | 0.2 | 0.1 | 0\% | 0\% |
| 66 | 0 | 885 | 0.0000 | 0.02\% | 0.01\% | 0.2 | 0.1 | 0\% | 0\% |
| 67 | 0 | 638 | 0.0000 | 0.02\% | 0.01\% | 0.1 | 0.1 | 0\% | 0\% |
| 68 | 0 | 511 | 0.0000 | 0.02\% | 0.01\% | 0.1 | 0.1 | 0\% | 0\% |
| 69 | 0 | 409 | 0.0000 | 0.02\% | 0.01\% | 0.1 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 34 | 0.0000 | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 3 | 145,532 |  |  |  | 29.1 | 16.7 | 10\% | 18\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN

|  | TABLE 11A GROUPED |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2011Expected Disabilities |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } / \text { (3) } \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 474 | 0.0000 | 0.02\% | 0.01\% | 0.1 | 0.0 | 0\% | 0\% |
| 25-29 | 0 | 2,360 | 0.0000 | 0.02\% | 0.01\% | 0.5 | 0.2 | 0\% | 0\% |
| 30-34 | 0 | 5,686 | 0.0000 | 0.02\% | 0.01\% | 1.1 | 0.6 | 0\% | 0\% |
| 35-39 | 0 | 10,428 | 0.0000 | 0.02\% | 0.01\% | 2.1 | 1.0 | 0\% | 0\% |
| 40-44 | 0 | 18,628 | 0.0000 | 0.02\% | 0.01\% | 3.7 | 1.9 | 0\% | 0\% |
| 45-49 | 0 | 25,336 | 0.0000 | 0.02\% | 0.01\% | 5.1 | 2.5 | 0\% | 0\% |
| 50-54 | 2 | 25,456 | 0.0001 | 0.02\% | 0.01\% | 5.1 | 2.5 | 39\% | 79\% |
| 55-59 | 0 | 20,195 | 0.0000 | 0.02\% | 0.01\% | 4.0 | 2.0 | 0\% | 0\% |
| 60-64 | 0 | 11,807 | 0.0000 | 0.02\% | 0.01\% | 2.4 | 1.2 | 0\% | 0\% |
| 65-69 | 0 | 3,278 | 0.0000 | 0.02\% | 0.01\% | 0.7 | 0.3 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 32 | 0.0000 | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 2 | 123,680 |  |  |  | 24.7 | 12.4 | 8\% | 16\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

|  | TABLE 11B GROUPED |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2011Expected Disabilities |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } / \text { (3) } \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 91 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 25-29 | 0 | 608 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 30-34 | 0 | 1,461 | 0.0000 | 0.02\% | 0.02\% | 0.3 | 0.3 | 0\% | 0\% |
| 35-39 | 0 | 2,799 | 0.0000 | 0.02\% | 0.02\% | 0.6 | 0.6 | 0\% | 0\% |
| 40-44 | 0 | 4,142 | 0.0000 | 0.02\% | 0.02\% | 0.8 | 0.8 | 0\% | 0\% |
| 45-49 | 0 | 4,764 | 0.0000 | 0.02\% | 0.02\% | 1.0 | 1.0 | 0\% | 0\% |
| 50-54 | 0 | 3,769 | 0.0000 | 0.02\% | 0.02\% | 0.8 | 0.8 | 0\% | 0\% |
| 55-59 | 0 | 2,595 | 0.0000 | 0.02\% | 0.02\% | 0.5 | 0.5 | 0\% | 0\% |
| 60-64 | 1 | 1,298 | 0.0008 | 0.02\% | 0.02\% | 0.3 | 0.3 | 385\% | 385\% |
| 65-69 | 0 | 323 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 2 | 0.0000 | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 1 | 21,852 |  |  |  | 4.4 | 4.4 | 23\% | 23\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Age | TABLE 11C GROUPED |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2011Expected Disabilities |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Disabilities | Total Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected $(2) /(7)$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 565 | 0.0000 | 0.02\% | 0.01\% | 0.1 | 0.1 | 0\% | 0\% |
| 25-29 | 0 | 2,968 | 0.0000 | 0.02\% | 0.01\% | 0.6 | 0.4 | 0\% | 0\% |
| 30-34 | 0 | 7,147 | 0.0000 | 0.02\% | 0.01\% | 1.4 | 0.9 | 0\% | 0\% |
| 35-39 | 0 | 13,227 | 0.0000 | 0.02\% | 0.01\% | 2.6 | 1.6 | 0\% | 0\% |
| 40-44 | 0 | 22,770 | 0.0000 | 0.02\% | 0.01\% | 4.6 | 2.7 | 0\% | 0\% |
| 45-49 | 0 | 30,100 | 0.0000 | 0.02\% | 0.01\% | 6.0 | 3.5 | 0\% | 0\% |
| 50-54 | 2 | 29,225 | 0.0001 | 0.02\% | 0.01\% | 5.8 | 3.3 | 34\% | 61\% |
| 55-59 | 0 | 22,790 | 0.0000 | 0.02\% | 0.01\% | 4.6 | 2.5 | 0\% | 0\% |
| 60-64 | 1 | 13,105 | 0.0001 | 0.02\% | 0.01\% | 2.6 | 1.4 | 38\% | 69\% |
| 65-69 | 0 | 3,601 | 0.0000 | 0.02\% | 0.01\% | 0.7 | 0.4 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 34 | 0.0000 | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 3 | 145,532 |  |  |  | 29.1 | 16.7 | 10\% | 18\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT aCCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN

|  | TABLE 11A |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 96 | 0.0000 | 0.02\% | 0.01\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 155 | 0.0000 | 0.02\% | 0.01\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 194 | 0.0000 | 0.02\% | 0.01\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 243 | 0.0000 | 0.02\% | 0.01\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 316 | 0.0000 | 0.02\% | 0.01\% | 0.1 | 0.0 | 0\% | 0\% |
| 25 | 0 | 478 | 0.0000 | 0.02\% | 0.01\% | 0.1 | 0.0 | 0\% | 0\% |
| 26 | 0 | 670 | 0.0000 | 0.02\% | 0.01\% | 0.1 | 0.1 | 0\% | 0\% |
| 27 | 0 | 920 | 0.0000 | 0.02\% | 0.01\% | 0.2 | 0.1 | 0\% | 0\% |
| 28 | 0 | 1,220 | 0.0000 | 0.02\% | 0.01\% | 0.2 | 0.1 | 0\% | 0\% |
| 29 | 1 | 1,488 | 0.0007 | 0.02\% | 0.01\% | 0.3 | 0.1 | 336\% | 672\% |
| 30 | 0 | 1,738 | 0.0000 | 0.02\% | 0.01\% | 0.3 | 0.2 | 0\% | 0\% |
| 31 | 0 | 2,041 | 0.0000 | 0.02\% | 0.01\% | 0.4 | 0.2 | 0\% | 0\% |
| 32 | 0 | 2,384 | 0.0000 | 0.02\% | 0.01\% | 0.5 | 0.2 | 0\% | 0\% |
| 33 | 0 | 2,815 | 0.0000 | 0.02\% | 0.01\% | 0.6 | 0.3 | 0\% | 0\% |
| 34 | 0 | 3,309 | 0.0000 | 0.02\% | 0.01\% | 0.7 | 0.3 | 0\% | 0\% |
| 35 | 0 | 3,793 | 0.0000 | 0.02\% | 0.01\% | 0.8 | 0.4 | 0\% | 0\% |
| 36 | 0 | 4,261 | 0.0000 | 0.02\% | 0.01\% | 0.9 | 0.4 | 0\% | 0\% |
| 37 | 0 | 4,903 | 0.0000 | 0.02\% | 0.01\% | 1.0 | 0.5 | 0\% | 0\% |
| 38 | 1 | 5,624 | 0.0002 | 0.02\% | 0.01\% | 1.1 | 0.6 | 89\% | 178\% |
| 39 | 1 | 6,361 | 0.0002 | 0.02\% | 0.01\% | 1.3 | 0.6 | 79\% | 157\% |
| 40 | 1 | 7,067 | 0.0001 | 0.02\% | 0.01\% | 1.4 | 0.7 | 71\% | 142\% |
| 41 | 1 | 7,842 | 0.0001 | 0.02\% | 0.01\% | 1.6 | 0.8 | 64\% | 128\% |
| 42 | 1 | 8,426 | 0.0001 | 0.02\% | 0.01\% | 1.7 | 0.8 | 59\% | 119\% |
| 43 | 1 | 8,965 | 0.0001 | 0.02\% | 0.01\% | 1.8 | 0.9 | 56\% | 112\% |
| 44 | 0 | 9,386 | 0.0000 | 0.02\% | 0.01\% | 1.9 | 0.9 | 0\% | 0\% |
| 45 | 0 | 9,786 | 0.0000 | 0.02\% | 0.01\% | 2.0 | 1.0 | 0\% | 0\% |
| 46 | 0 | 9,931 | 0.0000 | 0.02\% | 0.01\% | 2.0 | 1.0 | 0\% | 0\% |
| 47 | 0 | 10,098 | 0.0000 | 0.02\% | 0.01\% | 2.0 | 1.0 | 0\% | 0\% |
| 48 | 1 | 10,182 | 0.0001 | 0.02\% | 0.01\% | 2.0 | 1.0 | 49\% | 98\% |
| 49 | 0 | 10,109 | 0.0000 | 0.02\% | 0.01\% | 2.0 | 1.0 | 0\% | 0\% |
| 50 | 0 | 10,028 | 0.0000 | 0.02\% | 0.01\% | 2.0 | 1.0 | 0\% | 0\% |
| 51 | 1 | 9,966 | 0.0001 | 0.02\% | 0.01\% | 2.0 | 1.0 | 50\% | 100\% |
| 52 | 1 | 9,855 | 0.0001 | 0.02\% | 0.01\% | 2.0 | 1.0 | 51\% | 101\% |
| 53 | 1 | 9,634 | 0.0001 | 0.02\% | 0.01\% | 1.9 | 1.0 | 52\% | 104\% |
| 54 | 2 | 9,434 | 0.0002 | 0.02\% | 0.01\% | 1.9 | 0.9 | 106\% | 212\% |
| 55 | 1 | 8,993 | 0.0001 | 0.02\% | 0.01\% | 1.8 | 0.9 | 56\% | 111\% |
| 56 | 0 | 8,091 | 0.0000 | 0.02\% | 0.01\% | 1.6 | 0.8 | 0\% | 0\% |
| 57 | 0 | 7,461 | 0.0000 | 0.02\% | 0.01\% | 1.5 | 0.7 | 0\% | 0\% |
| 58 | 1 | 6,874 | 0.0001 | 0.02\% | 0.01\% | 1.4 | 0.7 | 73\% | 145\% |
| 59 | 1 | 6,175 | 0.0002 | 0.02\% | 0.01\% | 1.2 | 0.6 | 81\% | 162\% |
| 60 | 0 | 5,544 | 0.0000 | 0.02\% | 0.01\% | 1.1 | 0.6 | 0\% | 0\% |
| 61 | 1 | 4,905 | 0.0002 | 0.02\% | 0.01\% | 1.0 | 0.5 | 102\% | 204\% |
| 62 | 0 | 4,252 | 0.0000 | 0.02\% | 0.01\% | 0.9 | 0.4 | 0\% | 0\% |
| 63 | 0 | 3,241 | 0.0000 | 0.02\% | 0.01\% | 0.6 | 0.3 | 0\% | 0\% |
| 64 | 0 | 2,533 | 0.0000 | 0.02\% | 0.01\% | 0.5 | 0.3 | 0\% | 0\% |
| 65 | 0 | 1,918 | 0.0000 | 0.02\% | 0.01\% | 0.4 | 0.2 | 0\% | 0\% |
| 66 | 0 | 1,501 | 0.0000 | 0.02\% | 0.01\% | 0.3 | 0.2 | 0\% | 0\% |
| 67 | 0 | 1,083 | 0.0000 | 0.02\% | 0.01\% | 0.2 | 0.1 | 0\% | 0\% |
| 68 | 0 | 844 | 0.0000 | 0.02\% | 0.01\% | 0.2 | 0.1 | 0\% | 0\% |
| 69 | 0 | 646 | 0.0000 | 0.02\% | 0.01\% | 0.1 | 0.1 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 44 | 0.0000 | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 17 | 247,823 |  |  |  | 49.6 | 24.8 | 34\% | 69\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT accidental disability experience of active members WOMEN

|  | TABLE 11B |  |  | Assumed | bability | 8-YEAR PERIOD ENDING 6/30/2011Expected Disabilities |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 10 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 17 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 30 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 50 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 83 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 133 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 26 | 0 | 187 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 247 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 28 | 0 | 309 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 29 | 0 | 377 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 30 | 0 | 465 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 31 | 0 | 558 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 32 | 0 | 670 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 33 | 0 | 794 | 0.0000 | 0.02\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 34 | 1 | 886 | 0.0011 | 0.02\% | 0.02\% | 0.2 | 0.2 | 564\% | 564\% |
| 35 | 0 | 1,009 | 0.0000 | 0.02\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 36 | 0 | 1,146 | 0.0000 | 0.02\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 37 | 0 | 1,279 | 0.0000 | 0.02\% | 0.02\% | 0.3 | 0.3 | 0\% | 0\% |
| 38 | 1 | 1,377 | 0.0007 | 0.02\% | 0.02\% | 0.3 | 0.3 | 363\% | 363\% |
| 39 | 0 | 1,542 | 0.0000 | 0.02\% | 0.02\% | 0.3 | 0.3 | 0\% | 0\% |
| 40 | 2 | 1,663 | 0.0012 | 0.02\% | 0.02\% | 0.3 | 0.3 | 601\% | 601\% |
| 41 | 0 | 1,724 | 0.0000 | 0.02\% | 0.02\% | 0.3 | 0.3 | 0\% | 0\% |
| 42 | 0 | 1,765 | 0.0000 | 0.02\% | 0.02\% | 0.4 | 0.4 | 0\% | 0\% |
| 43 | 1 | 1,816 | 0.0006 | 0.02\% | 0.02\% | 0.4 | 0.4 | 275\% | 275\% |
| 44 | 0 | 1,833 | 0.0000 | 0.02\% | 0.02\% | 0.4 | 0.4 | 0\% | 0\% |
| 45 | 0 | 1,857 | 0.0000 | 0.02\% | 0.02\% | 0.4 | 0.4 | 0\% | 0\% |
| 46 | 0 | 1,855 | 0.0000 | 0.02\% | 0.02\% | 0.4 | 0.4 | 0\% | 0\% |
| 47 | 0 | 1,775 | 0.0000 | 0.02\% | 0.02\% | 0.4 | 0.4 | 0\% | 0\% |
| 48 | 0 | 1,679 | 0.0000 | 0.02\% | 0.02\% | 0.3 | 0.3 | 0\% | 0\% |
| 49 | 1 | 1,609 | 0.0006 | 0.02\% | 0.02\% | 0.3 | 0.3 | 311\% | 311\% |
| 50 | 0 | 1,560 | 0.0000 | 0.02\% | 0.02\% | 0.3 | 0.3 | 0\% | 0\% |
| 51 | 0 | 1,481 | 0.0000 | 0.02\% | 0.02\% | 0.3 | 0.3 | 0\% | 0\% |
| 52 | 1 | 1,425 | 0.0007 | 0.02\% | 0.02\% | 0.3 | 0.3 | 351\% | 351\% |
| 53 | 0 | 1,341 | 0.0000 | 0.02\% | 0.02\% | 0.3 | 0.3 | 0\% | 0\% |
| 54 | 0 | 1,267 | 0.0000 | 0.02\% | 0.02\% | 0.3 | 0.3 | 0\% | 0\% |
| 55 | 1 | 1,190 | 0.0008 | 0.02\% | 0.02\% | 0.2 | 0.2 | 420\% | 420\% |
| 56 | 0 | 1,049 | 0.0000 | 0.02\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 57 | 0 | 944 | 0.0000 | 0.02\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 58 | 0 | 849 | 0.0000 | 0.02\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 59 | 0 | 743 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 60 | 0 | 642 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 61 | 0 | 574 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 62 | 1 | 494 | 0.0020 | 0.02\% | 0.02\% | 0.1 | 0.1 | 1012\% | 1012\% |
| 63 | 0 | 353 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 64 | 0 | 255 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 65 | 0 | 198 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 146 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 95 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 64 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 42 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 3 | 0.0000 | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 9 | 43,460 |  |  |  | 8.7 | 8.7 | 104\% | 104\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT aCCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

|  | TABLE 11C |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 106 | 0.0000 | 0.02\% | 0.01\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 172 | 0.0000 | 0.02\% | 0.01\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 224 | 0.0000 | 0.02\% | 0.01\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 293 | 0.0000 | 0.02\% | 0.01\% | 0.1 | 0.0 | 0\% | 0\% |
| 24 | 0 | 399 | 0.0000 | 0.02\% | 0.01\% | 0.1 | 0.0 | 0\% | 0\% |
| 25 | 0 | 611 | 0.0000 | 0.02\% | 0.01\% | 0.1 | 0.1 | 0\% | 0\% |
| 26 | 0 | 857 | 0.0000 | 0.02\% | 0.01\% | 0.2 | 0.1 | 0\% | 0\% |
| 27 | 0 | 1,167 | 0.0000 | 0.02\% | 0.01\% | 0.2 | 0.1 | 0\% | 0\% |
| 28 | 0 | 1,529 | 0.0000 | 0.02\% | 0.01\% | 0.3 | 0.2 | 0\% | 0\% |
| 29 | 1 | 1,865 | 0.0005 | 0.02\% | 0.01\% | 0.4 | 0.2 | 268\% | 446\% |
| 30 | 0 | 2,203 | 0.0000 | 0.02\% | 0.01\% | 0.4 | 0.3 | 0\% | 0\% |
| 31 | 0 | 2,599 | 0.0000 | 0.02\% | 0.01\% | 0.5 | 0.3 | 0\% | 0\% |
| 32 | 0 | 3,054 | 0.0000 | 0.02\% | 0.01\% | 0.6 | 0.4 | 0\% | 0\% |
| 33 | 0 | 3,609 | 0.0000 | 0.02\% | 0.01\% | 0.7 | 0.4 | 0\% | 0\% |
| 34 | 1 | 4,195 | 0.0002 | 0.02\% | 0.01\% | 0.8 | 0.5 | 119\% | 197\% |
| 35 | 0 | 4,802 | 0.0000 | 0.02\% | 0.01\% | 1.0 | 0.6 | 0\% | 0\% |
| 36 | 0 | 5,407 | 0.0000 | 0.02\% | 0.01\% | 1.1 | 0.7 | 0\% | 0\% |
| 37 | 0 | 6,182 | 0.0000 | 0.02\% | 0.01\% | 1.2 | 0.7 | 0\% | 0\% |
| 38 | 2 | 7,001 | 0.0003 | 0.02\% | 0.01\% | 1.4 | 0.8 | 143\% | 239\% |
| 39 | 1 | 7,903 | 0.0001 | 0.02\% | 0.01\% | 1.6 | 0.9 | 63\% | 106\% |
| 40 | 3 | 8,730 | 0.0003 | 0.02\% | 0.01\% | 1.7 | 1.0 | 172\% | 289\% |
| 41 | 1 | 9,566 | 0.0001 | 0.02\% | 0.01\% | 1.9 | 1.1 | 52\% | 89\% |
| 42 | 1 | 10,191 | 0.0001 | 0.02\% | 0.01\% | 2.0 | 1.2 | 49\% | 84\% |
| 43 | 2 | 10,781 | 0.0002 | 0.02\% | 0.01\% | 2.2 | 1.3 | 93\% | 159\% |
| 44 | 0 | 11,219 | 0.0000 | 0.02\% | 0.01\% | 2.2 | 1.3 | 0\% | 0\% |
| 45 | 0 | 11,643 | 0.0000 | 0.02\% | 0.01\% | 2.3 | 1.4 | 0\% | 0\% |
| 46 | 0 | 11,786 | 0.0000 | 0.02\% | 0.01\% | 2.4 | 1.4 | 0\% | 0\% |
| 47 | 0 | 11,873 | 0.0000 | 0.02\% | 0.01\% | 2.4 | 1.4 | 0\% | 0\% |
| 48 | 1 | 11,861 | 0.0001 | 0.02\% | 0.01\% | 2.4 | 1.4 | 42\% | 74\% |
| 49 | 1 | 11,718 | 0.0001 | 0.02\% | 0.01\% | 2.3 | 1.3 | 43\% | 75\% |
| 50 | 0 | 11,588 | 0.0000 | 0.02\% | 0.01\% | 2.3 | 1.3 | 0\% | 0\% |
| 51 | 1 | 11,447 | 0.0001 | 0.02\% | 0.01\% | 2.3 | 1.3 | 44\% | 77\% |
| 52 | 2 | 11,280 | 0.0002 | 0.02\% | 0.01\% | 2.3 | 1.3 | 89\% | 157\% |
| 53 | 1 | 10,975 | 0.0001 | 0.02\% | 0.01\% | 2.2 | 1.2 | 46\% | 81\% |
| 54 | 2 | 10,701 | 0.0002 | 0.02\% | 0.01\% | 2.1 | 1.2 | 93\% | 167\% |
| 55 | 2 | 10,183 | 0.0002 | 0.02\% | 0.01\% | 2.0 | 1.1 | 98\% | 176\% |
| 56 | 0 | 9,140 | 0.0000 | 0.02\% | 0.01\% | 1.8 | 1.0 | 0\% | 0\% |
| 57 | 0 | 8,405 | 0.0000 | 0.02\% | 0.01\% | 1.7 | 0.9 | 0\% | 0\% |
| 58 | 1 | 7,723 | 0.0001 | 0.02\% | 0.01\% | 1.5 | 0.9 | 65\% | 117\% |
| 59 | 1 | 6,918 | 0.0001 | 0.02\% | 0.01\% | 1.4 | 0.8 | 72\% | 131\% |
| 60 | 0 | 6,186 | 0.0000 | 0.02\% | 0.01\% | 1.2 | 0.7 | 0\% | 0\% |
| 61 | 1 | 5,479 | 0.0002 | 0.02\% | 0.01\% | 1.1 | 0.6 | 91\% | 165\% |
| 62 | 1 | 4,746 | 0.0002 | 0.02\% | 0.01\% | 0.9 | 0.5 | 105\% | 191\% |
| 63 | 0 | 3,594 | 0.0000 | 0.02\% | 0.01\% | 0.7 | 0.4 | 0\% | 0\% |
| 64 | 0 | 2,788 | 0.0000 | 0.02\% | 0.01\% | 0.6 | 0.3 | 0\% | 0\% |
| 65 | 0 | 2,116 | 0.0000 | 0.02\% | 0.01\% | 0.4 | 0.2 | 0\% | 0\% |
| 66 | 0 | 1,647 | 0.0000 | 0.02\% | 0.01\% | 0.3 | 0.2 | 0\% | 0\% |
| 67 | 0 | 1,178 | 0.0000 | 0.02\% | 0.01\% | 0.2 | 0.1 | 0\% | 0\% |
| 68 | 0 | 908 | 0.0000 | 0.02\% | 0.01\% | 0.2 | 0.1 | 0\% | 0\% |
| 69 | 0 | 688 | 0.0000 | 0.02\% | 0.01\% | 0.1 | 0.1 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 47 | 0.0000 | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 26 | 291,283 |  |  |  | 58.2 | 33.5 | 45\% | 78\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN

|  | TABLE 11A GROUPED |  |  | Assumed Probability $\quad \begin{gathered}\text { 8-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered} \quad$ Actual/Expected |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected $(2) /(7)$ | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 1,004 | 0.0000 | 0.02\% | 0.01\% | 0.2 | 0.1 | 0\% | 0\% |
| 25-29 | 1 | 4,776 | 0.0002 | 0.02\% | 0.01\% | 1.0 | 0.5 | 105\% | 209\% |
| 30-34 | 0 | 12,287 | 0.0000 | 0.02\% | 0.01\% | 2.5 | 1.2 | 0\% | 0\% |
| 35-39 | 2 | 24,942 | 0.0001 | 0.02\% | 0.01\% | 5.0 | 2.5 | 40\% | 80\% |
| 40-44 | 4 | 41,686 | 0.0001 | 0.02\% | 0.01\% | 8.3 | 4.2 | 48\% | 96\% |
| 45-49 | 1 | 50,106 | 0.0000 | 0.02\% | 0.01\% | 10.0 | 5.0 | 10\% | 20\% |
| 50-54 | 5 | 48,917 | 0.0001 | 0.02\% | 0.01\% | 9.8 | 4.9 | 51\% | 102\% |
| 55-59 | 3 | 37,594 | 0.0001 | 0.02\% | 0.01\% | 7.5 | 3.8 | 40\% | 80\% |
| 60-64 | 1 | 20,475 | 0.0000 | 0.02\% | 0.01\% | 4.1 | 2.0 | 24\% | 49\% |
| 65-69 | 0 | 5,992 | 0.0000 | 0.02\% | 0.01\% | 1.2 | 0.6 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 44 | 0.0000 | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 17 | 247,823 |  |  |  | 49.6 | 24.8 | 34\% | 69\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

| Age | TABLE 11B GROUPED |  |  | Assumed Probability $\quad \begin{gathered}\text { 8-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered} \quad$ Actual/Expected |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | $\begin{gathered} \text { Proposed } \\ (8) /(3) \\ \hline \end{gathered}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 190 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 25-29 | 0 | 1,253 | 0.0000 | 0.02\% | 0.02\% | 0.3 | 0.3 | 0\% | 0\% |
| 30-34 | 1 | 3,373 | 0.0003 | 0.02\% | 0.02\% | 0.7 | 0.7 | 148\% | 148\% |
| 35-39 | 1 | 6,353 | 0.0002 | 0.02\% | 0.02\% | 1.3 | 1.3 | 79\% | 79\% |
| 40-44 | 3 | 8,801 | 0.0003 | 0.02\% | 0.02\% | 1.8 | 1.8 | 170\% | 170\% |
| 45-49 | 1 | 8,775 | 0.0001 | 0.02\% | 0.02\% | 1.8 | 1.8 | 57\% | 57\% |
| 50-54 | 1 | 7,074 | 0.0001 | 0.02\% | 0.02\% | 1.4 | 1.4 | 71\% | 71\% |
| 55-59 | 1 | 4,775 | 0.0002 | 0.02\% | 0.02\% | 1.0 | 1.0 | 105\% | 105\% |
| 60-64 | 1 | 2,318 | 0.0004 | 0.02\% | 0.02\% | 0.5 | 0.5 | 216\% | 216\% |
| 65-69 | 0 | 545 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 3 | 0.0000 | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 9 | 43,460 |  |  |  | 8.7 | 8.7 | 104\% | 104\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Age | TABLE 11C GROUPED |  |  | Assumed Probability |  | 8-YEAR PERIOD ENDING 6/30/2011Expected Disabilities |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Disabilities | Total Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 1,194 | 0.0000 | 0.02\% | 0.01\% | 0.2 | 0.1 | 0\% | 0\% |
| 25-29 | 1 | 6,029 | 0.0002 | 0.02\% | 0.01\% | 1.2 | 0.7 | 83\% | 137\% |
| 30-34 | 1 | 15,660 | 0.0001 | 0.02\% | 0.01\% | 3.1 | 1.9 | 32\% | 53\% |
| 35-39 | 3 | 31,295 | 0.0001 | 0.02\% | 0.01\% | 6.3 | 3.8 | 48\% | 80\% |
| 40-44 | 7 | 50,487 | 0.0001 | 0.02\% | 0.01\% | 10.1 | 5.9 | 69\% | 118\% |
| 45-49 | 2 | 58,881 | 0.0000 | 0.02\% | 0.01\% | 11.8 | 6.8 | 17\% | 30\% |
| 50-54 | 6 | 55,991 | 0.0001 | 0.02\% | 0.01\% | 11.2 | 6.3 | 54\% | 95\% |
| 55-59 | 4 | 42,369 | 0.0001 | 0.02\% | 0.01\% | 8.5 | 4.7 | 47\% | 85\% |
| 60-64 | 2 | 22,793 | 0.0001 | 0.02\% | 0.01\% | 4.6 | 2.5 | 44\% | 80\% |
| 65-69 | 0 | 6,537 | 0.0000 | 0.02\% | 0.01\% | 1.3 | 0.7 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 47 | 0.0000 | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 26 | 291,283 |  |  |  | 58.2 | 33.5 | 45\% | 78\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Plan <br> Year <br> Ending <br> June 30, | TABLE 11D <br> Life Years Exposed | Actual Disabilities | Expected Disabilities | 10-YEAR PERIOD ENDING 6/30/2013 <br> Disability Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / Expected | $\begin{gathered} \text { Actual } \\ (3) /(2) \end{gathered}$ | $\begin{gathered} \hline \text { Expected } \\ (4) /(2) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 37,012 | 5 | 5.9 | 85\% | 0.01\% | 0.02\% |
| 2005 | 36,264 | 2 | 5.8 | 35\% | 0.01\% | 0.02\% |
| 2006 | 36,147 | 6 | 5.7 | 105\% | 0.02\% | 0.02\% |
| 2007 | 36,324 | 10 | 5.8 | 174\% | 0.03\% | 0.02\% |
| 2008 | 36,517 | 1 | 5.8 | 17\% | 0.00\% | 0.02\% |
| 2009 | 37,293 | 0 | 5.9 | 0\% | 0.00\% | 0.02\% |
| 2010 | 36,414 | 1 | 5.8 | 17\% | 0.00\% | 0.02\% |
| 2011 | 35,308 | 1 | 5.6 | 18\% | 0.00\% | 0.02\% |
| 2012 | 34,311 | 1 | 5.4 | 18\% | 0.00\% | 0.02\% |
| 2013 | 34,067 | 0 | 5.4 | 0\% | 0.00\% | 0.02\% |
| Total | 359,657 | 27 | 57.0 | 47\% | 0.01\% | 0.02\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT

TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS
MEN AND WOMEN
TABLE 12A 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Total Salary BOY |  | Actual Salary EOY |  | Expected Salary EOY |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 1,024 | \$ | 57,030,649 | \$ | 63,359,498 | \$ | 67,866,472 | 58\% | 11.10\% | 19.00\% |
| 1 | 3,228 |  | 177,496,936 |  | 194,653,768 |  | 202,346,507 | 69\% | 9.67\% | 14.00\% |
| 2 | 4.527 |  | 264,499,566 |  | 296,381,447 |  | 290,949,523 | 121\% | 12.05\% | 10.00\% |
| 3 | 5,418 |  | 342,133,663 |  | 373,030,621 |  | 366,083,019 | 129\% | 9.03\% | 7.00\% |
| 4 | 5.838 |  | 394,031,313 |  | 405,248,724 |  | 413,732,879 | 57\% | 2.85\% | 5.00\% |
| 5 | 5,090 |  | 348,439,719 |  | 358,955,327 |  | 362,377,308 | 75\% | 3.02\% | 4.00\% |
| 6 | 4,042 |  | 278,964,176 |  | 285,509,925 |  | 288,727,922 | 67\% | 2.35\% | 3.50\% |
| 7 | 3,534 |  | 246,014,404 |  | 252,930,085 |  | 254,624,908 | 80\% | 2.81\% | 3.50\% |
| 8 | 4,328 |  | 299,092,982 |  | 309,682,033 |  | 309,561,236 | 101\% | 3.54\% | 3.50\% |
| 9 | 5,172 |  | 359,228,453 |  | 371,862,301 |  | 371,801,449 | 100\% | 3.52\% | 3.50\% |
| 10 | 6,678 |  | 463,590,313 |  | 477,762,849 |  | 479,815,974 | 87\% | 3.06\% | 3.50\% |
| 11 | 7.029 |  | 495,857,242 |  | 510,037,757 |  | 513,212,245 | 82\% | 2.86\% | 3.50\% |
| 12 | 6,230 |  | $442,315,247$ |  | 453,670,843 |  | 457,796,281 | 73\% | 2.57\% | 3.50\% |
| 13 | 5,195 |  | 374,284,438 |  | 381,151,633 |  | 387,384,393 | 52\% | 1.83\% | 3.50\% |
| 14 | 3.569 |  | 260,379.363 |  | 266,543,235 |  | 269,492,641 | 68\% | 2.37\% | 3.50\% |
| 15 | 3,254 |  | 235,353,812 |  | 241,926,415 |  | 243,591,195 | 80\% | 2.79\% | 3.50\% |
| 16 | 3,382 |  | 245,090,195 |  | 253,126,659 |  | 253,668,352 | 94\% | 3.28\% | 3.50\% |
| 17 | 4,014 |  | 293,524,767 |  | 302,418,501 |  | 303,798,134 | 87\% | 3.03\% | 3.50\% |
| 18 | 4,345 |  | 322,207,911 |  | 331,267,127 |  | 333,485,188 | 80\% | 2.81\% | 3.50\% |
| 19 | 4,457 |  | 331,214,461 |  | 339,282,105 |  | 342,806,967 | 70\% | 2.44\% | 3.50\% |
| 20 | 4.549 |  | 337,519,170 |  | 346,998,871 |  | 349,332,341 | 80\% | 2.81\% | 3.50\% |
| 21 | 4.973 |  | 369,037,175 |  | 379,955,163 |  | 381,953,476 | 85\% | 2.96\% | 3.50\% |
| 22 | 5,182 |  | 389,815,498 |  | 400,858,047 |  | 403,459,040 | 81\% | 2.83\% | 3.50\% |
| 23 | 4,878 |  | 373,239,893 |  | 382,581,077 |  | 386,303,289 | 72\% | 2.50\% | 3.50\% |
| 24 | 4,677 |  | 360,170,457 |  | 368.185,695 |  | 372,776,423 | 64\% | 2.23\% | 3.50\% |
| 25 | 3,486 |  | 270,163,807 |  | 277,383,144 |  | 279,619,540 | 76\% | 2.67\% | 3.50\% |
| 26 | 2,939 |  | 230,756,248 |  | 236,104,061 |  | 238,832,717 | 66\% | 2.32\% | 3.50\% |
| 27 | 2.716 |  | 215,048,852 |  | 220,135,636 |  | 222,575,562 | 68\% | 2.37\% | 3.50\% |
| 28 | 2,445 |  | 195,743,658 |  | 200,549,082 |  | 202,594,686 | 70\% | 2.45\% | 3.50\% |
| $\stackrel{29}{ }$ | 2,084 |  | 169,161,071 |  | 173,261,109 |  | 175,081,708 | 69\% | 2.42\% | 3.50\% |
| 30+ | 1.633 |  | 134,002,763 |  | 136,784,282 |  | 138,692,860 | 59\% | 2.08\% | 3.50\% |
| Total | 129,916 |  | 9,275,408,202 |  | 9,591,597,020 |  | ,664,344,236 | 81\% | 3.41\% | 4.19\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT

TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

TABLE 12A 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Total Salary BOY |  | Actual Salary EOY |  | Proposed SalaryEOY |  | Actual / Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 1,024 | \$ | 57,030,649 | \$ | 63,359,498 | \$ | 67,866,472 | 58\% | 11.10\% | 19.00\% |
| 1 | 3,228 |  | 177,496,936 |  | 194,653,768 |  | 202,346,507 | 69\% | 9.67\% | 14.00\% |
| 2 | 4.527 |  | 264,499,566 |  | 296,381,447 |  | 290,949,523 | 121\% | 12.05\% | 10.00\% |
| 3 | 5,418 |  | 342,133,663 |  | 373,030,621 |  | 366,083,019 | 129\% | 9.03\% | 7.00\% |
| 4 | 5.838 |  | 394,031,313 |  | 405,248,724 |  | 413,732,879 | 57\% | 2.85\% | 5.00\% |
| 5 | 5,090 |  | 348,439,719 |  | 358,955,327 |  | 362,377,308 | 75\% | 3.02\% | 4.00\% |
| 6 | 4,042 |  | 278,964,176 |  | 285,509,925 |  | 288,727,922 | 67\% | 2.35\% | 3.50\% |
| 7 | 3,534 |  | 246,014,404 |  | 252,930,085 |  | 254,624,908 | 80\% | 2.81\% | 3.50\% |
| 8 | 4,328 |  | 299,092,982 |  | 309,682,033 |  | 309,561,236 | 101\% | 3.54\% | 3.50\% |
| 9 | 5,172 |  | 359,228,453 |  | 371,862,301 |  | 371,801,449 | 100\% | 3.52\% | 3.50\% |
| 10 | 6,678 |  | 463,590,313 |  | 477,762,849 |  | 479,815,974 | 87\% | 3.06\% | 3.50\% |
| 11 | 7.029 |  | 495,857,242 |  | 510,037,757 |  | 513,212,245 | 82\% | 2.86\% | 3.50\% |
| 12 | 6,230 |  | $442,315,247$ |  | 453,670,843 |  | 457,796,281 | 73\% | 2.57\% | 3.50\% |
| 13 | 5,195 |  | 374,284,438 |  | 381,151,633 |  | 387,384,393 | 52\% | 1.83\% | 3.50\% |
| 14 | 3.569 |  | 260,379.363 |  | 266,543,235 |  | 269,492,641 | 68\% | 2.37\% | 3.50\% |
| 15 | 3,254 |  | 235,353,812 |  | 241,926,415 |  | 243,591,195 | 80\% | 2.79\% | 3.50\% |
| 16 | 3,382 |  | 245,090,195 |  | 253,126,659 |  | 253,668,352 | 94\% | 3.28\% | 3.50\% |
| 17 | 4,014 |  | 293,524,767 |  | 302,418,501 |  | 303,798,134 | 87\% | 3.03\% | 3.50\% |
| 18 | 4,345 |  | 322,207,911 |  | 331,267,127 |  | 333,485,188 | 80\% | 2.81\% | 3.50\% |
| 19 | 4,457 |  | 331,214,461 |  | 339,282,105 |  | 342,806,967 | 70\% | 2.44\% | 3.50\% |
| 20 | 4.549 |  | 337,519,170 |  | 346,998,871 |  | 349,332,341 | 80\% | 2.81\% | 3.50\% |
| 21 | 4.973 |  | 369,037,175 |  | 379,955,163 |  | 381,953,476 | 85\% | 2.96\% | 3.50\% |
| 22 | 5,182 |  | 389,815,498 |  | 400,858,047 |  | 403,459,040 | 81\% | 2.83\% | 3.50\% |
| 23 | 4,878 |  | 373,239,893 |  | 382,581,077 |  | 386,303,289 | 72\% | 2.50\% | 3.50\% |
| 24 | 4,677 |  | 360,170,457 |  | 368.185,695 |  | 372,776,423 | 64\% | 2.23\% | 3.50\% |
| 25 | 3,486 |  | 270,163,807 |  | 277,383,144 |  | 279,619,540 | 76\% | 2.67\% | 3.50\% |
| 26 | 2,939 |  | 230,756,248 |  | 236,104,061 |  | 238,832,717 | 66\% | 2.32\% | 3.50\% |
| 27 | 2.716 |  | 215,048,852 |  | 220,135,636 |  | 222,575,562 | 68\% | 2.37\% | 3.50\% |
| 28 | 2,445 |  | 195,743,658 |  | 200,549,082 |  | 202,594,686 | 70\% | 2.45\% | 3.50\% |
| $\stackrel{29}{ }$ | 2,084 |  | 169,161,071 |  | 173,261,109 |  | 175,081,708 | 69\% | 2.42\% | 3.50\% |
| 30+ | 1.633 |  | 134,002,763 |  | 136,784,282 |  | 138,692,860 | 59\% | 2.08\% | 3.50\% |
| Total | 129,916 |  | 9,275,408,202 |  | 9,591,597,020 |  | ,664,344,236 | 81\% | 3.41\% | 4.19\% |

# NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT <br> MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN 

TABLE 12B 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Total Salary BOY |  | Estimated Actual Merit <br> Salary EOY |  | Expected Merit Salary EOY |  | Actual / Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 1,024 | \$ | 57,030,649 | \$ | 63,516,934 | \$ | 65,870,400 | 73\% | 11.37\% | 15.50\% |
| 1 | 3,228 |  | 177,496,936 |  | 189,547,209 |  | 196,134,114 | 65\% | 6.79\% | 10.50\% |
| 2 | 4,527 |  | 264,499,566 |  | 289,259,406 |  | 281,692,038 | 144\% | 9.36\% | 6.50\% |
| 3 | 5,418 |  | 342,133,663 |  | 361,954,500 |  | 354,108,341 | 166\% | 5.79\% | 3.50\% |
| 4 | 5,838 |  | 394,031,313 |  | 395,173,256 |  | 399,941,783 | 19\% | 0.29\% | 1.50\% |
| 5 | 5,090 |  | 348,439,719 |  | 349,057,579 |  | 350,181,918 | 35\% | 0.18\% | 0.50\% |
| 6 | 4,042 |  | 278,964,176 |  | 278,964,176 |  | 278,964,176 |  | 0.00\% | 0.00\% |
| 7 | 3,534 |  | 246,014,404 |  | 246,014,404 |  | 246,014,404 |  | 0.00\% | 0.00\% |
| 8 | 4,328 |  | 299,092,982 |  | 299,092,982 |  | 299,092,982 |  | 0.00\% | 0.00\% |
| 9 | 5,172 |  | 359,228,453 |  | 359,228,453 |  | 359,228,453 |  | 0.00\% | 0.00\% |
| 10 | 6,678 |  | 463,590,313 |  | 463,590,313 |  | 463,590,313 |  | 0.00\% | 0.00\% |
| 11 | 7,029 |  | 495,857,242 |  | 495,857,242 |  | 495,857,242 |  | 0.00\% | 0.00\% |
| 12 | 6,230 |  | 442,315,247 |  | 442,315,247 |  | 442,315,247 |  | 0.00\% | 0.00\% |
| 13 | 5,195 |  | 374,284,438 |  | 374,284,438 |  | 374,284,438 |  | 0.00\% | 0.00\% |
| 14 | 3,569 |  | 260,379,363 |  | 260,379,363 |  | 260,379,363 |  | 0.00\% | 0.00\% |
| 15 | 3,254 |  | 235,353,812 |  | 235,353,812 |  | 235,353,812 |  | 0.00\% | 0.00\% |
| 16 | 3,382 |  | 245,090,195 |  | 245,090,195 |  | 245,090,195 |  | 0.00\% | 0.00\% |
| 17 | 4,014 |  | 293,524,767 |  | 293,524,767 |  | 293,524,767 |  | 0.00\% | 0.00\% |
| 18 | 4,345 |  | 322,207,911 |  | 322,207,911 |  | 322,207,911 |  | 0.00\% | 0.00\% |
| 19 | 4,457 |  | 331,214,461 |  | 331,214,461 |  | 331,214,461 |  | 0.00\% | 0.00\% |
| 20 | 4,549 |  | 337,519,170 |  | 337,519,170 |  | 337,519,170 |  | 0.00\% | 0.00\% |
| 21 | 4,973 |  | 369,037,175 |  | 369,037,175 |  | 369,037,175 |  | 0.00\% | 0.00\% |
| 22 | 5,182 |  | 389,815,498 |  | 389,815,498 |  | 389,815,498 |  | 0.00\% | 0.00\% |
| 23 | 4,878 |  | 373,239,893 |  | 373,239,893 |  | 373,239,893 |  | 0.00\% | 0.00\% |
| 24 | 4,677 |  | 360,170,457 |  | 360,170,457 |  | 360,170,457 |  | 0.00\% | 0.00\% |
| 25 | 3,486 |  | 270,163,807 |  | 270,163,807 |  | 270,163,807 |  | 0.00\% | 0.00\% |
| 26 | 2,939 |  | 230,756,248 |  | 230,756,248 |  | 230,756,248 |  | 0.00\% | 0.00\% |
| 27 | 2,716 |  | 215,048,852 |  | 215,048,852 |  | 215,048,852 |  | 0.00\% | 0.00\% |
| 28 | 2,445 |  | 195,743,658 |  | 195,743,658 |  | 195,743,658 |  | 0.00\% | 0.00\% |
| 29 | 2,084 |  | 169,161,071 |  | 169,161,071 |  | 169,161,071 |  | 0.00\% | 0.00\% |
| 30+ | 1,633 |  | 134,002,763 |  | 134,002,763 |  | 134,002,763 |  | 0.00\% | 0.00\% |
| Total | 129,916 |  | 9,275,408,202 |  | 9,340,285,239 |  | 9,339,704,949 | 101\% | 0.70\% | 0.69\% |

The rates for expected merit salary increases are based on actual rates of increase for total salary, adjusted for inflation of $1.71 \%$.
Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

# NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT <br> MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN 

TABLE 12B 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years <br> Exposed | Total Salary BOY |  | Estimated Actual Merit Salary EOY |  | Proposed Merit Salary EOY |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 1,024 | \$ | 57,030,649 | \$ | 63,516,934 | \$ | 65,870,400 | 73\% | 11.37\% | 15.50\% |
| 1 | 3,228 |  | 177,496,936 |  | 189,547,209 |  | 196,134,114 | 65\% | 6.79\% | 10.50\% |
| 2 | 4,527 |  | 264,499,566 |  | 289,259,406 |  | 281,692,038 | 144\% | 9.36\% | 6.50\% |
| 3 | 5,418 |  | 342,133,663 |  | 361,954,500 |  | 354,108,341 | 166\% | 5.79\% | 3.50\% |
| 4 | 5,838 |  | 394,031,313 |  | 395,173,256 |  | 399,941,783 | 19\% | 0.29\% | 1.50\% |
| 5 | 5,090 |  | 348,439,719 |  | 349,057,579 |  | 350,181,918 | 35\% | 0.18\% | 0.50\% |
| 6 | 4,042 |  | 278,964,176 |  | 278,964,176 |  | 278,964,176 |  | 0.00\% | 0.00\% |
| 7 | 3,534 |  | 246,014,404 |  | 246,014,404 |  | 246,014,404 |  | 0.00\% | 0.00\% |
| 8 | 4,328 |  | 299,092,982 |  | 299,092,982 |  | 299,092,982 |  | 0.00\% | 0.00\% |
| 9 | 5,172 |  | 359,228,453 |  | 359,228,453 |  | 359,228,453 |  | 0.00\% | 0.00\% |
| 10 | 6,678 |  | 463,590,313 |  | 463,590,313 |  | 463,590,313 |  | 0.00\% | 0.00\% |
| 11 | 7,029 |  | 495,857,242 |  | 495,857,242 |  | 495,857,242 |  | 0.00\% | 0.00\% |
| 12 | 6,230 |  | 442,315,247 |  | 442,315,247 |  | 442,315,247 |  | 0.00\% | 0.00\% |
| 13 | 5,195 |  | 374,284,438 |  | 374,284,438 |  | 374,284,438 |  | 0.00\% | 0.00\% |
| 14 | 3,569 |  | 260,379,363 |  | 260,379,363 |  | 260,379,363 |  | 0.00\% | 0.00\% |
| 15 | 3,254 |  | 235,353,812 |  | 235,353,812 |  | 235,353,812 |  | 0.00\% | 0.00\% |
| 16 | 3,382 |  | 245,090,195 |  | 245,090,195 |  | 245,090,195 |  | 0.00\% | 0.00\% |
| 17 | 4,014 |  | 293,524,767 |  | 293,524,767 |  | 293,524,767 |  | 0.00\% | 0.00\% |
| 18 | 4,345 |  | 322,207,911 |  | 322,207,911 |  | 322,207,911 |  | 0.00\% | 0.00\% |
| 19 | 4,457 |  | 331,214,461 |  | 331,214,461 |  | 331,214,461 |  | 0.00\% | 0.00\% |
| 20 | 4,549 |  | 337,519,170 |  | 337,519,170 |  | 337,519,170 |  | 0.00\% | 0.00\% |
| 21 | 4,973 |  | 369,037,175 |  | 369,037,175 |  | 369,037,175 |  | 0.00\% | 0.00\% |
| 22 | 5,182 |  | 389,815,498 |  | 389,815,498 |  | 389,815,498 |  | 0.00\% | 0.00\% |
| 23 | 4,878 |  | 373,239,893 |  | 373,239,893 |  | 373,239,893 |  | 0.00\% | 0.00\% |
| 24 | 4,677 |  | 360,170,457 |  | 360,170,457 |  | 360,170,457 |  | 0.00\% | 0.00\% |
| 25 | 3,486 |  | 270,163,807 |  | 270,163,807 |  | 270,163,807 |  | 0.00\% | 0.00\% |
| 26 | 2,939 |  | 230,756,248 |  | 230,756,248 |  | 230,756,248 |  | 0.00\% | 0.00\% |
| 27 | 2,716 |  | 215,048,852 |  | 215,048,852 |  | 215,048,852 |  | 0.00\% | 0.00\% |
| 28 | 2,445 |  | 195,743,658 |  | 195,743,658 |  | 195,743,658 |  | 0.00\% | 0.00\% |
| 29 | 2,084 |  | 169,161,071 |  | 169,161,071 |  | 169,161,071 |  | 0.00\% | 0.00\% |
| 30+ | 1,633 |  | 134,002,763 |  | 134,002,763 |  | 134,002,763 |  | 0.00\% | 0.00\% |
| Total | 129,916 |  | 9,275,408,202 |  | 9,340,285,239 |  | 9,339,704,949 | 101\% | 0.70\% | 0.69\% |

Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT <br> TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN



## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT <br> TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Service | TABLE 12A |  |  |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Life Years Exposed | Total Salary BOY |  | Actual Salary EOY |  | $\begin{gathered} \text { Proposed Salary } \\ \text { EOY } \end{gathered}$ |  | Actual / <br> Proposed | Increase \% |  |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 5,004 | \$ | 226,951,620 | \$ | 260,219,308 | \$ | 270,072,428 | 77\% | 14.66\% | 19.00\% |
| 1 | 10,830 |  | 535,440,411 |  | 591,935,832 |  | 610,402,069 | 75\% | 10.55\% | 14.00\% |
| 2 | 12,145 |  | 642,685,045 |  | 724,436,293 |  | 706,953,550 | 127\% | 12.72\% | 10.00\% |
| 3 | 13,254 |  | 766,642,804 |  | 833,985,711 |  | 820,307,800 | 125\% | 8.78\% | 7.00\% |
| 4 | 15,000 |  | 911,346,503 |  | 941,924,045 |  | 956,913,828 | 67\% | 3.36\% | 5.00\% |
| 5 | 15,169 |  | 928,744,640 |  | 958,614,969 |  | 965,894,426 | 80\% | 3.22\% | 4.00\% |
| 6 | 14,327 |  | 878,875,238 |  | 908,056,858 |  | 909,635,871 | 95\% | 3.32\% | 3.50\% |
| 7 | 13,429 |  | 836,904,554 |  | 864,091,624 |  | 866,196,213 | 93\% | 3.25\% | 3.50\% |
| 8 | 12,524 |  | 793,572,845 |  | 823,108,716 |  | 821,347,895 | 106\% | 3.72\% | 3.50\% |
| 9 | 12,920 |  | 831,075,435 |  | 857,653,057 |  | 860,163,075 | 91\% | 3.20\% | 3.50\% |
| 10 | 13,263 |  | 861,257,251 |  | 888,564,468 |  | 891,401,255 | 91\% | 3.17\% | 3.50\% |
| 11 | 13,493 |  | 883,715,373 |  | 910,243,275 |  | 914,645,411 | 86\% | 3.00\% | 3.50\% |
| 12 | 12,466 |  | 818,279,666 |  | 842,384,687 |  | 846,919,454 | 84\% | 2.95\% | 3.50\% |
| 13 | 11,999 |  | 788,078,045 |  | 810,283,125 |  | 815,660,777 | 81\% | 2.82\% | 3.50\% |
| 14 | 11,423 |  | 741,892,160 |  | 765,968,917 |  | 767,858,386 | 93\% | 3.25\% | 3.50\% |
| 15 | 11,944 |  | 770,520,110 |  | 796,211,106 |  | 797,488,314 | 95\% | 3.33\% | 3.50\% |
| 16 | 12,082 |  | 786,471,224 |  | 812,048,240 |  | 813,997,717 | 93\% | 3.25\% | 3.50\% |
| 17 | 12,272 |  | 811,963,735 |  | 839,103,549 |  | 840,382,466 | 95\% | 3.34\% | 3.50\% |
| 18 | 13,070 |  | 875,983,594 |  | 902,973,470 |  | 906,643,020 | 88\% | 3.08\% | 3.50\% |
| 19 | 12,850 |  | 871,649,645 |  | 898,767,322 |  | 902,157,383 | 89\% | 3.11\% | 3.50\% |
| 20 | 12,229 |  | 840,208,607 |  | 865,847,863 |  | 869,615,908 | 87\% | 3.05\% | 3.50\% |
| 21 | 11,780 |  | 815,977,495 |  | 841,703,442 |  | 844,536,707 | 90\% | 3.15\% | 3.50\% |
| 22 | 11,806 |  | 827,782,799 |  | 853,577,068 |  | 856,755,197 | 89\% | 3.12\% | 3.50\% |
| 23 | 11,241 |  | 801,188,655 |  | 824,075,868 |  | 829,230,258 | 82\% | 2.86\% | 3.50\% |
| 24 | 10,144 |  | 731,823,934 |  | 752,593,805 |  | 757,437,772 | 81\% | 2.84\% | 3.50\% |
| 25 | 7,957 |  | 581,587,162 |  | 599,327,789 |  | 601,942,713 | 87\% | 3.05\% | 3.50\% |
| 26 | 6,509 |  | 485,841,926 |  | 499,506,332 |  | 502,846,393 | 80\% | 2.81\% | 3.50\% |
| 27 | 5,254 |  | 401,006,832 |  | 411,863,646 |  | 415,042,071 | 77\% | 2.71\% | 3.50\% |
| 28 | 4,030 |  | 314,077,185 |  | 322,264,673 |  | 325,069,886 | 74\% | 2.61\% | 3.50\% |
| 29 | 3,237 |  | 254,071,660 |  | 260,592,985 |  | 262,964,168 | 73\% | 2.57\% | 3.50\% |
| 30+ | 2,498 |  | 196,581,936 |  | 201,284,080 |  | 203,462,304 | 68\% | 2.39\% | 3.50\% |
| Total | 336,149 |  | 21,812,198,089 |  | 22,663,212,123 |  | 22,753,944,713 | 90\% | 3.90\% | 4.32\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

TABLE 12B 10-YEAR PERIOD ENDING 6/30/2013


The rates for expected merit salary increases are based on actual rates of increase for total salary, adjusted for inflation of $2.43 \%$. Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT <br> MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

TABLE 12B 10-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Total Salary BOY |  | Estimated Actual Merit Salary EOY |  | Proposed Merit Salary EOY |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 5,004 | \$ | 226,951,620 | \$ | 252,763,579 | \$ | 262,129,121 | 73\% | 11.37\% | 15.50\% |
| 1 | 10,830 |  | 535,440,411 |  | 571,791,479 |  | 591,661,654 | 65\% | 6.79\% | 10.50\% |
| 2 | 12,145 |  | 642,685,045 |  | 702,846,878 |  | 684,459,573 | 144\% | 9.36\% | 6.50\% |
| 3 | 13,254 |  | 766,642,804 |  | 811,056,737 |  | 793,475,302 | 166\% | 5.79\% | 3.50\% |
| 4 | 15,000 |  | 911,346,503 |  | 913,987,678 |  | 925,016,701 | 19\% | 0.29\% | 1.50\% |
| 5 | 15,169 |  | 928,744,640 |  | 930,391,508 |  | 933,388,363 | 35\% | 0.18\% | 0.50\% |
| 6 | 14,327 |  | 878,875,238 |  | 878,875,238 |  | 878,875,238 |  | 0.00\% | 0.00\% |
| 7 | 13,429 |  | 836,904,554 |  | 836,904,554 |  | 836,904,554 |  | 0.00\% | 0.00\% |
| 8 | 12,524 |  | 793,572,845 |  | 793,572,845 |  | 793,572,845 |  | 0.00\% | 0.00\% |
| 9 | 12,920 |  | 831,075,435 |  | 831,075,435 |  | 831,075,435 |  | 0.00\% | 0.00\% |
| 10 | 13,263 |  | 861,257,251 |  | 861,257,251 |  | 861,257,251 |  | 0.00\% | 0.00\% |
| 11 | 13,493 |  | 883,715,373 |  | 883,715,373 |  | 883,715,373 |  | 0.00\% | 0.00\% |
| 12 | 12,466 |  | 818,279,666 |  | 818,279,666 |  | 818,279,666 |  | 0.00\% | 0.00\% |
| 13 | 11,999 |  | 788,078,045 |  | 788,078,045 |  | 788,078,045 |  | 0.00\% | 0.00\% |
| 14 | 11,423 |  | 741,892,160 |  | 741,892,160 |  | 741,892,160 |  | 0.00\% | 0.00\% |
| 15 | 11,944 |  | 770,520,110 |  | 770,520,110 |  | 770,520,110 |  | 0.00\% | 0.00\% |
| 16 | 12,082 |  | 786,471,224 |  | 786,471,224 |  | 786,471,224 |  | 0.00\% | 0.00\% |
| 17 | 12,272 |  | 811,963,735 |  | 811,963,735 |  | 811,963,735 |  | 0.00\% | 0.00\% |
| 18 | 13,070 |  | 875,983,594 |  | 875,983,594 |  | 875,983,594 |  | 0.00\% | 0.00\% |
| 19 | 12,850 |  | 871,649,645 |  | 871,649,645 |  | 871,649,645 |  | 0.00\% | 0.00\% |
| 20 | 12,229 |  | 840,208,607 |  | 840,208,607 |  | 840,208,607 |  | 0.00\% | 0.00\% |
| 21 | 11,780 |  | 815,977,495 |  | 815,977,495 |  | 815,977,495 |  | 0.00\% | 0.00\% |
| 22 | 11,806 |  | 827,782,799 |  | 827,782,799 |  | 827,782,799 |  | 0.00\% | 0.00\% |
| 23 | 11,241 |  | 801,188,655 |  | 801,188,655 |  | 801,188,655 |  | 0.00\% | 0.00\% |
| 24 | 10,144 |  | 731,823,934 |  | 731,823,934 |  | 731,823,934 |  | 0.00\% | 0.00\% |
| 25 | 7,957 |  | 581,587,162 |  | 581,587,162 |  | 581,587,162 |  | 0.00\% | 0.00\% |
| 26 | 6,509 |  | 485,841,926 |  | 485,841,926 |  | 485,841,926 |  | 0.00\% | 0.00\% |
| 27 | 5,254 |  | 401,006,832 |  | 401,006,832 |  | 401,006,832 |  | 0.00\% | 0.00\% |
| 28 | 4,030 |  | 314,077,185 |  | 314,077,185 |  | 314,077,185 |  | 0.00\% | 0.00\% |
| 29 | 3,237 |  | 254,071,660 |  | 254,071,660 |  | 254,071,660 |  | 0.00\% | 0.00\% |
| 30+ | 2,498 |  | 196,581,936 |  | 196,581,936 |  | 196,581,936 |  | 0.00\% | 0.00\% |
| Total | 336,149 |  | 21,812,198,089 |  | 21,983,224,926 |  | 21,990,517,780 | 96\% | 0.78\% | 0.82\% |

Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT

TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS
MEN AND WOMEN

| Plan Year Ending June 30, | TABLE 12C <br> Life Years Exposed | Total Salary BOY |  | Actual Salary EOY |  | $\begin{gathered} \text { Expected Salary } \\ \text { EOY } \\ \hline \end{gathered}$ |  | 10-YEAR PERIOD ENDING 6/30/2013$\qquad$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / Expected | Actual <br> (4) / (3) |  |  | Expected $(5) /(3)$ |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (5) | (6) | (7) |
| 2004 | 35,446 | \$ | 1,988,770,100 | \$ | 2,066,976,933 | \$ | 2,079,015,418 | 87\% | 3.93\% | 4.54\% |
| 2005 | 35,442 |  | 2,055,149,348 |  | 2,143,444,637 |  | 2,143,518,741 | 100\% | 4.30\% | 4.30\% |
| 2006 | 33,589 |  | 2,026,407,112 |  | 2,111,965,737 |  | 2,109,795,957 | 103\% | 4.22\% | 4.12\% |
| 2007 | 34,283 |  | 2,118,415,921 |  | 2,209,105,327 |  | 2,209,066,774 | 100\% | 4.28\% | 4.28\% |
| 2008 | 34,829 |  | 2,210,640,615 |  | 2,346,161,702 |  | 2,309,108,139 | 138\% | 6.13\% | 4.45\% |
| 2009 | 35,788 |  | 2,371,492,134 |  | 2,435,777,069 |  | 2,481,373,779 | 59\% | 2.71\% | 4.63\% |
| 2010 | 34,573 |  | 2,347,039,341 |  | 2,454,448,062 |  | 2,450,702,949 | 104\% | 4.58\% | 4.42\% |
| 2011 | 33,367 |  | 2,357,446,081 |  | 2,491,079,850 |  | 2,455,287,985 | 137\% | 5.67\% | 4.15\% |
| 2012 | 32,624 |  | 2,414,687,089 |  | 2,459,715,086 |  | 2,512,590,552 | 46\% | 1.86\% | 4.05\% |
| 2013 | 32,215 |  | 2,397,247,073 |  | 2,431,542,334 |  | 2,495,209,530 | 35\% | 1.43\% | 4.09\% |
| Total | 342,156 |  | 22,287,294,814 |  | 23,150,216,737 |  | 23,245,669,824 | 90\% | 3.87\% | 4.30\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT <br> OVERTIME PAY EXPERIENCE FOR ALL YEARS MEN AND WOMEN

TABLE 13A

| Service | Life Years <br> Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 1,024 | \$ | 52,806,156 | \$ | 1,060,085 | \$ | 4,224,493 | 25\% | 2.01\% | 8.00\% |
| 1 | 3,228 |  | 164,349,015 |  | 11,714,957 |  | 13,147,921 | 89\% | 7.13\% | 8.00\% |
| 2 | 4,527 |  | 244,907,006 |  | 17,725,022 |  | 19,592,560 | 90\% | 7.24\% | 8.00\% |
| 3 | 5,418 |  | 316,790,429 |  | 23,959,677 |  | 25,343,234 | 95\% | 7.56\% | 8.00\% |
| 4 | 5,838 |  | 364,843,808 |  | 28,754,757 |  | 29,187,505 | 99\% | 7.88\% | 8.00\% |
| 5 | 5,090 |  | 322,629,369 |  | 27,717,577 |  | 25,810,350 | 107\% | 8.59\% | 8.00\% |
| 6 | 4,042 |  | 258,300,163 |  | 23,709,490 |  | 20,664,013 | 115\% | 9.18\% | 8.00\% |
| 7 | 3,534 |  | 227,791,115 |  | 21,262,274 |  | 18,223,289 | 117\% | 9.33\% | 8.00\% |
| 8 | 4,328 |  | 276,937,946 |  | 23,532,964 |  | 22,155,036 | 106\% | 8.50\% | 8.00\% |
| 9 | 5,172 |  | 332,618,938 |  | 28,838,502 |  | 26,609,515 | 108\% | 8.67\% | 8.00\% |
| 10 | 6,678 |  | 429,250,290 |  | 37,582,864 |  | 34,340,023 | 109\% | 8.76\% | 8.00\% |
| 11 | 7,029 |  | 459,127,076 |  | 40,721,475 |  | 36,730,166 | 111\% | 8.87\% | 8.00\% |
| 12 | 6,230 |  | 409,551,155 |  | 38,605,762 |  | 32,764,092 | 118\% | 9.43\% | 8.00\% |
| 13 | 5,195 |  | 346,559,665 |  | 31,907,169 |  | 27,724,773 | 115\% | 9.21\% | 8.00\% |
| 14 | 3,569 |  | 241,092,003 |  | 20,914,684 |  | 19,287,360 | 108\% | 8.67\% | 8.00\% |
| 15 | 3,254 |  | 217,920,196 |  | 18,979,197 |  | 17,433,616 | 109\% | 8.71\% | 8.00\% |
| 16 | 3,382 |  | 226,935,366 |  | 21,286,692 |  | 18,154,829 | 117\% | 9.38\% | 8.00\% |
| 17 | 4,014 |  | 271,782,192 |  | 28,773,262 |  | 21,742,575 | 132\% | 10.59\% | 8.00\% |
| 18 | 4,345 |  | 298,340,658 |  | 33,277,546 |  | 23,867,253 | 139\% | 11.15\% | 8.00\% |
| 19 | 4,457 |  | 306,680,056 |  | 33,825,738 |  | 24,534,405 | 138\% | 11.03\% | 8.00\% |
| 20 | 4,549 |  | 312,517,750 |  | 33,315,065 |  | 25,001,420 | 133\% | 10.66\% | 8.00\% |
| 21 | 4,973 |  | 341,701,088 |  | 33,950,178 |  | 27,336,087 | 124\% | 9.94\% | 8.00\% |
| 22 | 5,182 |  | 360,940,276 |  | 34,961,951 |  | 28,875,222 | 121\% | 9.69\% | 8.00\% |
| 23 | 4,878 |  | 345,592,494 |  | 31,970,369 |  | 27,647,399 | 116\% | 9.25\% | 8.00\% |
| 24 | 4,677 |  | 333,491,164 |  | 32,173,811 |  | 26,679,293 | 121\% | 9.65\% | 8.00\% |
| 25 | 3,486 |  | 250,151,673 |  | 24,855,052 |  | 20,012,134 | 124\% | 9.94\% | 8.00\% |
| 26 | 2,939 |  | 213,663,193 |  | 21,084,795 |  | 17,093,055 | 123\% | 9.87\% | 8.00\% |
| 27 | 2,716 |  | 199,119,307 |  | 20,066,575 |  | 15,929,545 | 126\% | 10.08\% | 8.00\% |
| 28 | 2,445 |  | 181,244,128 |  | 17,370,845 |  | 14,499,530 | 120\% | 9.58\% | 8.00\% |
| 29 | 2,084 |  | 156,630,621 |  | 14,273,217 |  | 12,530,450 | 114\% | 9.11\% | 8.00\% |
| 30 | 1,633 |  | 124,076,632 |  | 12,082,169 |  | 9,926,131 | 122\% | 9.74\% | 8.00\% |
| 31 | 1,147 |  | 89,186,364 |  | 8,566,166 |  | 7,134,909 | 120\% | 9.60\% | 8.00\% |
| 32 | 645 |  | 50,697,004 |  | 5,216,598 |  | 4,055,760 | 129\% | 10.29\% | 8.00\% |
| 33 | 321 |  | 25,416,175 |  | 2,651,473 |  | 2,033,294 | 130\% | 10.43\% | 8.00\% |
| 34 | 145 |  | 11,683,256 |  | 1,250,309 |  | 934,660 | 134\% | 10.70\% | 8.00\% |
| 35 | 100 |  | 7,604,608 |  | 956,215 |  | 608,369 | 157\% | 12.57\% | 8.00\% |
| 36 | 101 |  | 7,610,194 |  | 788,553 |  | 608,816 | 130\% | 10.36\% | 8.00\% |
| 37 | 79 |  | 6,084,935 |  | 478,405 |  | 486,795 | 98\% | 7.86\% | 8.00\% |
| 38 | 78 |  | 6,074,403 |  | 342,764 |  | 485,952 | 71\% | 5.64\% | 8.00\% |
| 39 | 82 |  | 6,242,410 |  | 322,862 |  | 499,393 | 65\% | 5.17\% | 8.00\% |
| 40 | 49 |  | 3,649,864 |  | 177,576 |  | 291,989 | 61\% | 4.87\% | 8.00\% |
| 41 | 38 |  | 3,010,595 |  | 88,096 |  | 240,848 | 37\% | 2.93\% | 8.00\% |
| 42 | 28 |  | 2,139,907 |  | 63,309 |  | 171,193 | 37\% | 2.96\% | 8.00\% |
| 43 | 16 |  | 1,160,481 |  | 19,620 |  | 92,839 | 21\% | 1.69\% | 8.00\% |
| 44 | 12 |  | 906,771 |  | 4,953 |  | 72,542 | 7\% | 0.55\% | 8.00\% |
| 45 | 10 |  | 786,139 |  | 13,637 |  | 62,891 | 22\% | 1.73\% | 8.00\% |
| Total | 132,767 |  | 8,810,594,035 |  | 811,194,257 |  | 704,847,523 | 115\% | 9.21\% | 8.00\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT <br> OVERTIME PAY EXPERIENCE FOR ALL YEARS MEN AND WOMEN

TABLE 13A

| Service | Life Years <br> Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 1,024 | \$ | 52,806,156 | \$ | 1,060,085 | \$ | 4,224,493 | 25\% | 2.01\% | 8.00\% |
| 1 | 3,228 |  | 164,349,015 |  | 11,714,957 |  | 13,147,921 | 89\% | 7.13\% | 8.00\% |
| 2 | 4,527 |  | 244,907,006 |  | 17,725,022 |  | 19,592,560 | 90\% | 7.24\% | 8.00\% |
| 3 | 5,418 |  | 316,790,429 |  | 23,959,677 |  | 25,343,234 | 95\% | 7.56\% | 8.00\% |
| 4 | 5,838 |  | 364,843,808 |  | 28,754,757 |  | 29,187,505 | 99\% | 7.88\% | 8.00\% |
| 5 | 5,090 |  | 322,629,369 |  | 27,717,577 |  | 25,810,350 | 107\% | 8.59\% | 8.00\% |
| 6 | 4,042 |  | 258,300,163 |  | 23,709,490 |  | 20,664,013 | 115\% | 9.18\% | 8.00\% |
| 7 | 3,534 |  | 227,791,115 |  | 21,262,274 |  | 18,223,289 | 117\% | 9.33\% | 8.00\% |
| 8 | 4,328 |  | 276,937,946 |  | 23,532,964 |  | 22,155,036 | 106\% | 8.50\% | 8.00\% |
| 9 | 5,172 |  | 332,618,938 |  | 28,838,502 |  | 26,609,515 | 108\% | 8.67\% | 8.00\% |
| 10 | 6,678 |  | 429,250,290 |  | 37,582,864 |  | 34,340,023 | 109\% | 8.76\% | 8.00\% |
| 11 | 7,029 |  | 459,127,076 |  | 40,721,475 |  | 36,730,166 | 111\% | 8.87\% | 8.00\% |
| 12 | 6,230 |  | 409,551,155 |  | 38,605,762 |  | 32,764,092 | 118\% | 9.43\% | 8.00\% |
| 13 | 5,195 |  | 346,559,665 |  | 31,907,169 |  | 27,724,773 | 115\% | 9.21\% | 8.00\% |
| 14 | 3,569 |  | 241,092,003 |  | 20,914,684 |  | 19,287,360 | 108\% | 8.67\% | 8.00\% |
| 15 | 3,254 |  | 217,920,196 |  | 18,979,197 |  | 17,433,616 | 109\% | 8.71\% | 8.00\% |
| 16 | 3,382 |  | 226,935,366 |  | 21,286,692 |  | 18,154,829 | 117\% | 9.38\% | 8.00\% |
| 17 | 4,014 |  | 271,782,192 |  | 28,773,262 |  | 21,742,575 | 132\% | 10.59\% | 8.00\% |
| 18 | 4,345 |  | 298,340,658 |  | 33,277,546 |  | 23,867,253 | 139\% | 11.15\% | 8.00\% |
| 19 | 4,457 |  | 306,680,056 |  | 33,825,738 |  | 24,534,405 | 138\% | 11.03\% | 8.00\% |
| 20 | 4,549 |  | 312,517,750 |  | 33,315,065 |  | 25,001,420 | 133\% | 10.66\% | 8.00\% |
| 21 | 4,973 |  | 341,701,088 |  | 33,950,178 |  | 27,336,087 | 124\% | 9.94\% | 8.00\% |
| 22 | 5,182 |  | 360,940,276 |  | 34,961,951 |  | 28,875,222 | 121\% | 9.69\% | 8.00\% |
| 23 | 4,878 |  | 345,592,494 |  | 31,970,369 |  | 27,647,399 | 116\% | 9.25\% | 8.00\% |
| 24 | 4,677 |  | 333,491,164 |  | 32,173,811 |  | 26,679,293 | 121\% | 9.65\% | 8.00\% |
| 25 | 3,486 |  | 250,151,673 |  | 24,855,052 |  | 20,012,134 | 124\% | 9.94\% | 8.00\% |
| 26 | 2,939 |  | 213,663,193 |  | 21,084,795 |  | 17,093,055 | 123\% | 9.87\% | 8.00\% |
| 27 | 2,716 |  | 199,119,307 |  | 20,066,575 |  | 15,929,545 | 126\% | 10.08\% | 8.00\% |
| 28 | 2,445 |  | 181,244,128 |  | 17,370,845 |  | 14,499,530 | 120\% | 9.58\% | 8.00\% |
| 29 | 2,084 |  | 156,630,621 |  | 14,273,217 |  | 12,530,450 | 114\% | 9.11\% | 8.00\% |
| 30 | 1,633 |  | 124,076,632 |  | 12,082,169 |  | 9,926,131 | 122\% | 9.74\% | 8.00\% |
| 31 | 1,147 |  | 89,186,364 |  | 8,566,166 |  | 7,134,909 | 120\% | 9.60\% | 8.00\% |
| 32 | 645 |  | 50,697,004 |  | 5,216,598 |  | 4,055,760 | 129\% | 10.29\% | 8.00\% |
| 33 | 321 |  | 25,416,175 |  | 2,651,473 |  | 2,033,294 | 130\% | 10.43\% | 8.00\% |
| 34 | 145 |  | 11,683,256 |  | 1,250,309 |  | 934,660 | 134\% | 10.70\% | 8.00\% |
| 35 | 100 |  | 7,604,608 |  | 956,215 |  | 608,369 | 157\% | 12.57\% | 8.00\% |
| 36 | 101 |  | 7,610,194 |  | 788,553 |  | 608,816 | 130\% | 10.36\% | 8.00\% |
| 37 | 79 |  | 6,084,935 |  | 478,405 |  | 486,795 | 98\% | 7.86\% | 8.00\% |
| 38 | 78 |  | 6,074,403 |  | 342,764 |  | 485,952 | 71\% | 5.64\% | 8.00\% |
| 39 | 82 |  | 6,242,410 |  | 322,862 |  | 499,393 | 65\% | 5.17\% | 8.00\% |
| 40 | 49 |  | 3,649,864 |  | 177,576 |  | 291,989 | 61\% | 4.87\% | 8.00\% |
| 41 | 38 |  | 3,010,595 |  | 88,096 |  | 240,848 | 37\% | 2.93\% | 8.00\% |
| 42 | 28 |  | 2,139,907 |  | 63,309 |  | 171,193 | 37\% | 2.96\% | 8.00\% |
| 43 | 16 |  | 1,160,481 |  | 19,620 |  | 92,839 | 21\% | 1.69\% | 8.00\% |
| 44 | 12 |  | 906,771 |  | 4,953 |  | 72,542 | 7\% | 0.55\% | 8.00\% |
| 45 | 10 |  | 786,139 |  | 13,637 |  | 62,891 | 22\% | 1.73\% | 8.00\% |
| Total | 132,767 |  | 8,810,594,035 |  | 811,194,257 |  | 704,847,523 | 115\% | 9.21\% | 8.00\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT OVERTIME PAY EXPERIENCE BEFORE SERVICE RETIREMENT MEN AND WOMEN

TABLE 13B 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years <br> Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  | 0.00\% | 8.00\% |
| 1 | 0 |  | - |  | - |  | - |  | 0.00\% | 8.00\% |
| 2 | 0 |  | - |  | - |  | - |  | 0.00\% | 8.00\% |
| 3 | 1 | \$ | 76,396 | \$ | 3,762 | \$ | 6,112 | 62\% | 4.92\% | 8.00\% |
| 4 | 4 |  | 249,681 |  | 5,487 |  | 19,974 | 27\% | 2.20\% | 8.00\% |
| 5 | 9 |  | 543,947 |  | 33,772 |  | 43,516 | 78\% | 6.21\% | 8.00\% |
| 6 | 7 |  | 499,201 |  | 27,289 |  | 39,936 | 68\% | 5.47\% | 8.00\% |
| 7 | 8 |  | 497,874 |  | 33,772 |  | 39,830 | 85\% | 6.78\% | 8.00\% |
| 8 | 8 |  | 522,211 |  | 11,675 |  | 41,777 | 28\% | 2.24\% | 8.00\% |
| 9 | 14 |  | 862,462 |  | 47,083 |  | 68,997 | 68\% | 5.46\% | 8.00\% |
| 10 | 45 |  | 2,938,458 |  | 105,639 |  | 235,077 | 45\% | 3.60\% | 8.00\% |
| 11 | 54 |  | 3,469,292 |  | 188,008 |  | 277,543 | 68\% | 5.42\% | 8.00\% |
| 12 | 52 |  | 3,352,120 |  | 120,271 |  | 268,170 | 45\% | 3.59\% | 8.00\% |
| 13 | 52 |  | 3,540,754 |  | 167,713 |  | 283,260 | 59\% | 4.74\% | 8.00\% |
| 14 | 45 |  | 3,071,568 |  | 135,879 |  | 245,725 | 55\% | 4.42\% | 8.00\% |
| 15 | 29 |  | 1,903,114 |  | 72,314 |  | 152,249 | 47\% | 3.80\% | 8.00\% |
| 16 | 46 |  | 3,036,312 |  | 179,150 |  | 242,905 | 74\% | 5.90\% | 8.00\% |
| 17 | 39 |  | 2,529,196 |  | 139,225 |  | 202,336 | 69\% | 5.50\% | 8.00\% |
| 18 | 39 |  | 2,733,331 |  | 189,674 |  | 218,667 | 87\% | 6.94\% | 8.00\% |
| 19 | 63 |  | 4,245,215 |  | 420,628 |  | 339,617 | 124\% | 9.91\% | 8.00\% |
| 20 | 141 |  | 9,251,581 |  | 547,411 |  | 740,126 | 74\% | 5.92\% | 8.00\% |
| 21 | 140 |  | 9,448,464 |  | 733,880 |  | 755,877 | 97\% | 7.77\% | 8.00\% |
| 22 | 127 |  | 8,487,938 |  | 624,374 |  | 679,035 | 92\% | 7.36\% | 8.00\% |
| 23 | 149 |  | 10,407,428 |  | 637,701 |  | 832,594 | 77\% | 6.13\% | 8.00\% |
| 24 | 203 |  | 14,458,627 |  | 1,060,407 |  | 1,156,690 | 92\% | 7.33\% | 8.00\% |
| 25 | 497 |  | 35,166,429 |  | 2,968,843 |  | 2,813,314 | 106\% | 8.44\% | 8.00\% |
| 26 | 336 |  | 23,579,895 |  | 2,034,895 |  | 1,886,392 | 108\% | 8.63\% | 8.00\% |
| 27 | 304 |  | 21,915,432 |  | 1,560,260 |  | 1,753,235 | 89\% | 7.12\% | 8.00\% |
| 28 | 268 |  | 19,319,481 |  | 1,626,332 |  | 1,545,559 | 105\% | 8.42\% | 8.00\% |
| 29 | 303 |  | 22,241,369 |  | 1,758,894 |  | 1,779,310 | 99\% | 7.91\% | 8.00\% |
| 30 | 362 |  | 27,203,877 |  | 2,278,928 |  | 2,176,310 | 105\% | 8.38\% | 8.00\% |
| 31 | 275 |  | 21,116,332 |  | 1,723,081 |  | 1,689,307 | 102\% | 8.16\% | 8.00\% |
| 32 | 175 |  | 13,897,212 |  | 1,112,346 |  | 1,111,777 | 100\% | 8.00\% | 8.00\% |
| 33 | 99 |  | 7,755,077 |  | 672,453 |  | 620,406 | 108\% | 8.67\% | 8.00\% |
| 34 | 62 |  | 4,893,471 |  | 453,476 |  | 391,478 | 116\% | 9.27\% | 8.00\% |
| 35 | 43 |  | 3,536,221 |  | 262,279 |  | 282,898 | 93\% | 7.42\% | 8.00\% |
| 36 | 29 |  | 2,061,264 |  | 368,420 |  | 164,901 | 223\% | 17.87\% | 8.00\% |
| 37 | 30 |  | 2,420,876 |  | 216,629 |  | 193,670 | 112\% | 8.95\% | 8.00\% |
| 38 | 19 |  | 1,646,169 |  | 51,942 |  | 131,693 | 39\% | 3.16\% | 8.00\% |
| 39 | 26 |  | 2,233,077 |  | 79,227 |  | 178,646 | 44\% | 3.55\% | 8.00\% |
| 40 | 22 |  | 1,833,121 |  | 135,636 |  | 146,650 | 92\% | 7.40\% | 8.00\% |
| 41 | 15 |  | 1,075,622 |  | 28,078 |  | 86,050 | 33\% | 2.61\% | 8.00\% |
| 42 | 8 |  | 587,883 |  | 11,236 |  | 47,031 | 24\% | 1.91\% | 8.00\% |
| 43 | 7 |  | 664,981 |  | 2,069 |  | 53,198 | 4\% | 0.31\% | 8.00\% |
| 44 | 3 |  | 186,591 |  | 1,104 |  | 14,927 | 7\% | 0.59\% | 8.00\% |
| 45 | 1 |  | 83,997 |  | 388 |  | 6,720 | 6\% | 0.46\% | 8.00\% |
| Total | 4,159 |  | 299,543,548 |  | 22,831,630 |  | 23,963,484 | 95\% | 7.62\% | 8.00\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT OVERTIME PAY EXPERIENCE BEFORE SERVICE RETIREMENT MEN AND WOMEN

TABLE 13B 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual / Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  | 0.00\% | 8.00\% |
| 1 | 0 |  | - |  | - |  | - |  | 0.00\% | 8.00\% |
| 2 | 0 |  | - |  | - |  | - |  | 0.00\% | 8.00\% |
| 3 | 1 | \$ | \$ 76,396 | \$ | 3,762 | \$ | 6,112 | 62\% | 4.92\% | 8.00\% |
| 4 | 4 |  | 249,681 |  | 5,487 |  | 19,974 | 27\% | 2.20\% | 8.00\% |
| 5 | 9 |  | 543,947 |  | 33,772 |  | 43,516 | 78\% | 6.21\% | 8.00\% |
| 6 | 7 |  | 499,201 |  | 27,289 |  | 39,936 | 68\% | 5.47\% | 8.00\% |
| 7 | 8 |  | 497,874 |  | 33,772 |  | 39,830 | 85\% | 6.78\% | 8.00\% |
| 8 | 8 |  | 522,211 |  | 11,675 |  | 41,777 | 28\% | 2.24\% | 8.00\% |
| 9 | 14 |  | 862,462 |  | 47,083 |  | 68,997 | 68\% | 5.46\% | 8.00\% |
| 10 | 45 |  | 2,938,458 |  | 105,639 |  | 235,077 | 45\% | 3.60\% | 8.00\% |
| 11 | 54 |  | 3,469,292 |  | 188,008 |  | 277,543 | 68\% | 5.42\% | 8.00\% |
| 12 | 52 |  | 3,352,120 |  | 120,271 |  | 268,170 | 45\% | 3.59\% | 8.00\% |
| 13 | 52 |  | 3,540,754 |  | 167,713 |  | 283,260 | 59\% | 4.74\% | 8.00\% |
| 14 | 45 |  | 3,071,568 |  | 135,879 |  | 245,725 | 55\% | 4.42\% | 8.00\% |
| 15 | 29 |  | 1,903,114 |  | 72,314 |  | 152,249 | 47\% | 3.80\% | 8.00\% |
| 16 | 46 |  | 3,036,312 |  | 179,150 |  | 242,905 | 74\% | 5.90\% | 8.00\% |
| 17 | 39 |  | 2,529,196 |  | 139,225 |  | 202,336 | 69\% | 5.50\% | 8.00\% |
| 18 | 39 |  | 2,733,331 |  | 189,674 |  | 218,667 | 87\% | 6.94\% | 8.00\% |
| 19 | 63 |  | 4,245,215 |  | 420,628 |  | 339,617 | 124\% | 9.91\% | 8.00\% |
| 20 | 141 |  | 9,251,581 |  | 547,411 |  | 740,126 | 74\% | 5.92\% | 8.00\% |
| 21 | 140 |  | 9,448,464 |  | 733,880 |  | 755,877 | 97\% | 7.77\% | 8.00\% |
| 22 | 127 |  | 8,487,938 |  | 624,374 |  | 679,035 | 92\% | 7.36\% | 8.00\% |
| 23 | 149 |  | 10,407,428 |  | 637,701 |  | 832,594 | 77\% | 6.13\% | 8.00\% |
| 24 | 203 |  | 14,458,627 |  | 1,060,407 |  | 1,156,690 | 92\% | 7.33\% | 8.00\% |
| 25 | 497 |  | 35,166,429 |  | 2,968,843 |  | 2,813,314 | 106\% | 8.44\% | 8.00\% |
| 26 | 336 |  | 23,579,895 |  | 2,034,895 |  | 1,886,392 | 108\% | 8.63\% | 8.00\% |
| 27 | 304 |  | 21,915,432 |  | 1,560,260 |  | 1,753,235 | 89\% | 7.12\% | 8.00\% |
| 28 | 268 |  | 19,319,481 |  | 1,626,332 |  | 1,545,559 | 105\% | 8.42\% | 8.00\% |
| 29 | 303 |  | 22,241,369 |  | 1,758,894 |  | 1,779,310 | 99\% | 7.91\% | 8.00\% |
| 30 | 362 |  | 27,203,877 |  | 2,278,928 |  | 2,176,310 | 105\% | 8.38\% | 8.00\% |
| 31 | 275 |  | 21,116,332 |  | 1,723,081 |  | 1,689,307 | 102\% | 8.16\% | 8.00\% |
| 32 | 175 |  | 13,897,212 |  | 1,112,346 |  | 1,111,777 | 100\% | 8.00\% | 8.00\% |
| 33 | 99 |  | 7,755,077 |  | 672,453 |  | 620,406 | 108\% | 8.67\% | 8.00\% |
| 34 | 62 |  | 4,893,471 |  | 453,476 |  | 391,478 | 116\% | 9.27\% | 8.00\% |
| 35 | 43 |  | 3,536,221 |  | 262,279 |  | 282,898 | 93\% | 7.42\% | 8.00\% |
| 36 | 29 |  | 2,061,264 |  | 368,420 |  | 164,901 | 223\% | 17.87\% | 8.00\% |
| 37 | 30 |  | 2,420,876 |  | 216,629 |  | 193,670 | 112\% | 8.95\% | 8.00\% |
| 38 | 19 |  | 1,646,169 |  | 51,942 |  | 131,693 | 39\% | 3.16\% | 8.00\% |
| 39 | 26 |  | 2,233,077 |  | 79,227 |  | 178,646 | 44\% | 3.55\% | 8.00\% |
| 40 | 22 |  | 1,833,121 |  | 135,636 |  | 146,650 | 92\% | 7.40\% | 8.00\% |
| 41 | 15 |  | 1,075,622 |  | 28,078 |  | 86,050 | 33\% | 2.61\% | 8.00\% |
| 42 | 8 |  | 587,883 |  | 11,236 |  | 47,031 | 24\% | 1.91\% | 8.00\% |
| 43 | 7 |  | 664,981 |  | 2,069 |  | 53,198 | 4\% | 0.31\% | 8.00\% |
| 44 | 3 |  | 186,591 |  | 1,104 |  | 14,927 | 7\% | 0.59\% | 8.00\% |
| 45 | 1 |  | 83,997 |  | 388 |  | 6,720 | 6\% | 0.46\% | 8.00\% |
| Total | 4,159 |  | 299,543,548 |  | 22,831,630 |  | 23,963,484 | 95\% | 7.62\% | 8.00\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT
OVERTIME PAY EXPERIENCE BEFORE DISABLED RETIREMENT MEN AND WOMEN

TABLE 13C

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 1 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 2 | 1 | \$ | 70,912 | \$ | 4,222 |  | 5,673 | 74\% | 5.95\% | 8.00\% |
| 3 | 3 |  | 142,119 |  | 11,415 |  | 11,370 | 100\% | 8.03\% | 8.00\% |
| 4 | 3 |  | 187,564 |  | 25,431 |  | 15,005 | 169\% | 13.56\% | 8.00\% |
| 5 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 6 | 3 |  | 184,386 |  | 1,669 |  | 14,751 | 11\% | 0.91\% | 8.00\% |
| 7 | 6 |  | 314,215 |  | 4,088 |  | 25,137 | 16\% | 1.30\% | 8.00\% |
| 8 | 3 |  | 177,097 |  | 16,890 |  | 14,168 | 119\% | 9.54\% | 8.00\% |
| 9 | 18 |  | 1,090,124 |  | 28,356 |  | 87,210 | 33\% | 2.60\% | 8.00\% |
| 10 | 30 |  | 1,685,193 |  | 99,619 |  | 134,815 | 74\% | 5.91\% | 8.00\% |
| 11 | 30 |  | 1,661,068 |  | 137,782 |  | 132,885 | 104\% | 8.29\% | 8.00\% |
| 12 | 33 |  | 1,782,543 |  | 45,358 |  | 142,603 | 32\% | 2.54\% | 8.00\% |
| 13 | 25 |  | 1,389,731 |  | 73,667 |  | 111,178 | 66\% | 5.30\% | 8.00\% |
| 14 | 19 |  | 1,058,397 |  | 77,296 |  | 84,672 | 91\% | 7.30\% | 8.00\% |
| 15 | 23 |  | 1,108,326 |  | 55,626 |  | 88,666 | 63\% | 5.02\% | 8.00\% |
| 16 | 20 |  | 1,223,633 |  | 50,208 |  | 97,891 | 51\% | 4.10\% | 8.00\% |
| 17 | 26 |  | 1,497,209 |  | 105,107 |  | 119,777 | 88\% | 7.02\% | 8.00\% |
| 18 | 13 |  | 798,397 |  | 23,937 |  | 63,872 | 37\% | 3.00\% | 8.00\% |
| 19 | 30 |  | 1,945,881 |  | 93,233 |  | 155,670 | 60\% | 4.79\% | 8.00\% |
| 20 | 31 |  | 1,774,369 |  | 80,186 |  | 141,950 | 56\% | 4.52\% | 8.00\% |
| 21 | 35 |  | 2,087,631 |  | 155,437 |  | 167,011 | 93\% | 7.45\% | 8.00\% |
| 22 | 37 |  | 2,227,787 |  | 116,902 |  | 178,223 | 66\% | 5.25\% | 8.00\% |
| 23 | 24 |  | 1,350,231 |  | 39,316 |  | 108,018 | 36\% | 2.91\% | 8.00\% |
| 24 | 16 |  | 947,654 |  | 28,309 |  | 75,812 | 37\% | 2.99\% | 8.00\% |
| 25 | 17 |  | 882,706 |  | 14,981 |  | 70,616 | 21\% | 1.70\% | 8.00\% |
| 26 | 15 |  | 919,030 |  | 43,099 |  | 73,522 | 59\% | 4.69\% | 8.00\% |
| 27 | 10 |  | 700,534 |  | 74,311 |  | 56,043 | 133\% | 10.61\% | 8.00\% |
| 28 | 3 |  | 229,138 |  | 39,895 |  | 18,331 | 218\% | 17.41\% | 8.00\% |
| 29 | 2 |  | 172,658 |  | 7,850 |  | 13,813 | 57\% | 4.55\% | 8.00\% |
| 30 | 4 |  | 228,109 |  | 17,674 |  | 18,249 | 97\% | 7.75\% | 8.00\% |
| 31 | 1 |  | 64,093 |  | 449 |  | 5,127 | 9\% | 0.70\% | 8.00\% |
| 32 | 0 |  | - |  | - |  |  |  |  | 8.00\% |
| 33 | 2 |  | 112,858 |  | - |  | 9,029 |  |  | 8.00\% |
| 34 | 2 |  | 108,642 |  | 2,066 |  | 8,691 | 24\% | 1.90\% | 8.00\% |
| 35 | 1 |  | 61,427 |  | 1,694 |  | 4,914 | 34\% | 2.76\% | 8.00\% |
| 36 | 0 |  | , |  | , |  | , |  |  | 8.00\% |
| 37 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 38 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 39 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 40 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 41 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 42 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 43 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| Total | 486 |  | 28,183,661 |  | 1,476,073 |  | 2,254,693 | 65\% | 5.24\% | 8.00\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT
OVERTIME PAY EXPERIENCE BEFORE DISABLED RETIREMENT MEN AND WOMEN

TABLE 13C


## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT <br> OVERTIME PAY EXPERIENCE FOR ALL YEARS MEN AND WOMEN

TABLE 13A

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 5,078 | \$ | 212,276,254 | \$ | 4,561,871 | \$ | 16,982,100 | 27\% | 2.15\% | 8.00\% |
| 1 | 10,916 |  | 498,667,031 |  | 32,710,215 |  | 39,893,363 | 82\% | 6.56\% | 8.00\% |
| 2 | 12,217 |  | 597,885,467 |  | 42,686,689 |  | 47,830,837 | 89\% | 7.14\% | 8.00\% |
| 3 | 13,345 |  | 713,815,653 |  | 56,722,154 |  | 57,105,252 | 99\% | 7.95\% | 8.00\% |
| 4 | 15,096 |  | 848,394,716 |  | 66,875,703 |  | 67,871,577 | 99\% | 7.88\% | 8.00\% |
| 5 | 15,281 |  | 865,340,301 |  | 68,930,017 |  | 69,227,224 | 100\% | 7.97\% | 8.00\% |
| 6 | 14,450 |  | 819,636,844 |  | 61,621,422 |  | 65,570,947 | 94\% | 7.52\% | 8.00\% |
| 7 | 13,505 |  | 778,713,421 |  | 59,904,562 |  | 62,297,074 | 96\% | 7.69\% | 8.00\% |
| 8 | 12,593 |  | 738,310,122 |  | 51,091,617 |  | 59,064,810 | 87\% | 6.92\% | 8.00\% |
| 9 | 12,957 |  | 771,316,808 |  | 60,510,572 |  | 61,705,345 | 98\% | 7.85\% | 8.00\% |
| 10 | 13,315 |  | 800,029,351 |  | 65,735,091 |  | 64,002,348 | 103\% | 8.22\% | 8.00\% |
| 11 | 13,551 |  | 821,107,039 |  | 73,015,802 |  | 65,688,563 | 111\% | 8.89\% | 8.00\% |
| 12 | 12,519 |  | 760,241,351 |  | 70,630,349 |  | 60,819,308 | 116\% | 9.29\% | 8.00\% |
| 13 | 12,050 |  | 732,128,229 |  | 64,941,519 |  | 58,570,258 | 111\% | 8.87\% | 8.00\% |
| 14 | 11,480 |  | 689,876,798 |  | 59,410,586 |  | 55,190,144 | 108\% | 8.61\% | 8.00\% |
| 15 | 12,004 |  | 716,444,669 |  | 61,442,153 |  | 57,315,574 | 107\% | 8.58\% | 8.00\% |
| 16 | 12,149 |  | 731,542,449 |  | 64,487,123 |  | 58,523,396 | 110\% | 8.82\% | 8.00\% |
| 17 | 12,327 |  | 754,624,354 |  | 66,251,441 |  | 60,369,948 | 110\% | 8.78\% | 8.00\% |
| 18 | 13,129 |  | 814,289,569 |  | 73,767,630 |  | 65,143,166 | 113\% | 9.06\% | 8.00\% |
| 19 | 12,899 |  | 809,702,490 |  | 69,694,390 |  | 64,776,199 | 108\% | 8.61\% | 8.00\% |
| 20 | 12,256 |  | 779,432,127 |  | 68,581,394 |  | 62,354,570 | 110\% | 8.80\% | 8.00\% |
| 21 | 11,807 |  | 756,982,640 |  | 66,173,166 |  | 60,558,611 | 109\% | 8.74\% | 8.00\% |
| 22 | 11,830 |  | 767,673,181 |  | 62,272,038 |  | 61,413,854 | 101\% | 8.11\% | 8.00\% |
| 23 | 11,267 |  | 743,290,383 |  | 61,392,302 |  | 59,463,231 | 103\% | 8.26\% | 8.00\% |
| 24 | 10,164 |  | 678,744,487 |  | 57,997,378 |  | 54,299,559 | 107\% | 8.54\% | 8.00\% |
| 25 | 7,970 |  | 539,238,199 |  | 45,583,511 |  | 43,139,056 | 106\% | 8.45\% | 8.00\% |
| 26 | 6,520 |  | 450,463,994 |  | 36,939,514 |  | 36,037,120 | 103\% | 8.20\% | 8.00\% |
| 27 | 5,262 |  | 371,794,918 |  | 32,468,452 |  | 29,743,593 | 109\% | 8.73\% | 8.00\% |
| 28 | 4,035 |  | 291,066,834 |  | 24,705,631 |  | 23,285,347 | 106\% | 8.49\% | 8.00\% |
| 29 | 3,240 |  | 235,425,343 |  | 20,571,514 |  | 18,834,027 | 109\% | 8.74\% | 8.00\% |
| 30 | 2,500 |  | 182,139,052 |  | 16,923,098 |  | 14,571,124 | 116\% | 9.29\% | 8.00\% |
| 31 | 1,761 |  | 130,114,756 |  | 11,750,561 |  | 10,409,181 | 113\% | 9.03\% | 8.00\% |
| 32 | 1,134 |  | 83,195,956 |  | 7,558,294 |  | 6,655,677 | 114\% | 9.08\% | 8.00\% |
| 33 | 824 |  | 59,692,571 |  | 4,580,215 |  | 4,775,406 | 96\% | 7.67\% | 8.00\% |
| 34 | 594 |  | 42,875,689 |  | 2,762,441 |  | 3,430,055 | 81\% | 6.44\% | 8.00\% |
| 35 | 442 |  | 31,609,378 |  | 2,283,919 |  | 2,528,750 | 90\% | 7.23\% | 8.00\% |
| 36 | 333 |  | 24,027,740 |  | 1,454,247 |  | 1,922,219 | 76\% | 6.05\% | 8.00\% |
| 37 | 269 |  | 19,610,539 |  | 854,159 |  | 1,568,843 | 54\% | 4.36\% | 8.00\% |
| 38 | 215 |  | 15,894,357 |  | 675,763 |  | 1,271,549 | 53\% | 4.25\% | 8.00\% |
| 39 | 149 |  | 10,980,313 |  | 459,065 |  | 878,425 | 52\% | 4.18\% | 8.00\% |
| 40 | 86 |  | 6,219,632 |  | 225,799 |  | 497,571 | 45\% | 3.63\% | 8.00\% |
| 41 | 67 |  | 5,214,155 |  | 157,663 |  | 417,132 | 38\% | 3.02\% | 8.00\% |
| 42 | 47 |  | 3,637,286 |  | 111,287 |  | 290,983 | 38\% | 3.06\% | 8.00\% |
| 43 | 28 |  | 2,110,011 |  | 28,658 |  | 168,801 | 17\% | 1.36\% | 8.00\% |
| 44 | 18 |  | 1,494,430 |  | 29,667 |  | 119,554 | 25\% | 1.99\% | 8.00\% |
| 45 | 12 |  | 1,009,045 |  | 13,637 |  | 80,724 | 17\% | 1.35\% | 8.00\% |
| Total | 343,691 |  | 20,708,279,932 |  | 1,701,544,279 |  | 656,662,395 | 103\% | 8.22\% | 8.00\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT <br> OVERTIME PAY EXPERIENCE FOR ALL YEARS MEN AND WOMEN

TABLE 13A 10-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 5,078 | \$ | 212,276,254 | \$ | 4,561,871 | \$ | 16,982,100 | 27\% | 2.15\% | 8.00\% |
| 1 | 10,916 |  | 498,667,031 |  | 32,710,215 |  | 39,893,363 | 82\% | 6.56\% | 8.00\% |
| 2 | 12,217 |  | 597,885,467 |  | 42,686,689 |  | 47,830,837 | 89\% | 7.14\% | 8.00\% |
| 3 | 13,345 |  | 713,815,653 |  | 56,722,154 |  | 57,105,252 | 99\% | 7.95\% | 8.00\% |
| 4 | 15,096 |  | 848,394,716 |  | 66,875,703 |  | 67,871,577 | 99\% | 7.88\% | 8.00\% |
| 5 | 15,281 |  | 865,340,301 |  | 68,930,017 |  | 69,227,224 | 100\% | 7.97\% | 8.00\% |
| 6 | 14,450 |  | 819,636,844 |  | 61,621,422 |  | 65,570,947 | 94\% | 7.52\% | 8.00\% |
| 7 | 13,505 |  | 778,713,421 |  | 59,904,562 |  | 62,297,074 | 96\% | 7.69\% | 8.00\% |
| 8 | 12,593 |  | 738,310,122 |  | 51,091,617 |  | 59,064,810 | 87\% | 6.92\% | 8.00\% |
| 9 | 12,957 |  | 771,316,808 |  | 60,510,572 |  | 61,705,345 | 98\% | 7.85\% | 8.00\% |
| 10 | 13,315 |  | 800,029,351 |  | 65,735,091 |  | 64,002,348 | 103\% | 8.22\% | 8.00\% |
| 11 | 13,551 |  | 821,107,039 |  | 73,015,802 |  | 65,688,563 | 111\% | 8.89\% | 8.00\% |
| 12 | 12,519 |  | 760,241,351 |  | 70,630,349 |  | 60,819,308 | 116\% | 9.29\% | 8.00\% |
| 13 | 12,050 |  | 732,128,229 |  | 64,941,519 |  | 58,570,258 | 111\% | 8.87\% | 8.00\% |
| 14 | 11,480 |  | 689,876,798 |  | 59,410,586 |  | 55,190,144 | 108\% | 8.61\% | 8.00\% |
| 15 | 12,004 |  | 716,444,669 |  | 61,442,153 |  | 57,315,574 | 107\% | 8.58\% | 8.00\% |
| 16 | 12,149 |  | 731,542,449 |  | 64,487,123 |  | 58,523,396 | 110\% | 8.82\% | 8.00\% |
| 17 | 12,327 |  | 754,624,354 |  | 66,251,441 |  | 60,369,948 | 110\% | 8.78\% | 8.00\% |
| 18 | 13,129 |  | 814,289,569 |  | 73,767,630 |  | 65,143,166 | 113\% | 9.06\% | 8.00\% |
| 19 | 12,899 |  | 809,702,490 |  | 69,694,390 |  | 64,776,199 | 108\% | 8.61\% | 8.00\% |
| 20 | 12,256 |  | 779,432,127 |  | 68,581,394 |  | 62,354,570 | 110\% | 8.80\% | 8.00\% |
| 21 | 11,807 |  | 756,982,640 |  | 66,173,166 |  | 60,558,611 | 109\% | 8.74\% | 8.00\% |
| 22 | 11,830 |  | 767,673,181 |  | 62,272,038 |  | 61,413,854 | 101\% | 8.11\% | 8.00\% |
| 23 | 11,267 |  | 743,290,383 |  | 61,392,302 |  | 59,463,231 | 103\% | 8.26\% | 8.00\% |
| 24 | 10,164 |  | 678,744,487 |  | 57,997,378 |  | 54,299,559 | 107\% | 8.54\% | 8.00\% |
| 25 | 7,970 |  | 539,238,199 |  | 45,583,511 |  | 43,139,056 | 106\% | 8.45\% | 8.00\% |
| 26 | 6,520 |  | 450,463,994 |  | 36,939,514 |  | 36,037,120 | 103\% | 8.20\% | 8.00\% |
| 27 | 5,262 |  | 371,794,918 |  | 32,468,452 |  | 29,743,593 | 109\% | 8.73\% | 8.00\% |
| 28 | 4,035 |  | 291,066,834 |  | 24,705,631 |  | 23,285,347 | 106\% | 8.49\% | 8.00\% |
| 29 | 3,240 |  | 235,425,343 |  | 20,571,514 |  | 18,834,027 | 109\% | 8.74\% | 8.00\% |
| 30 | 2,500 |  | 182,139,052 |  | 16,923,098 |  | 14,571,124 | 116\% | 9.29\% | 8.00\% |
| 31 | 1,761 |  | 130,114,756 |  | 11,750,561 |  | 10,409,181 | 113\% | 9.03\% | 8.00\% |
| 32 | 1,134 |  | 83,195,956 |  | 7,558,294 |  | 6,655,677 | 114\% | 9.08\% | 8.00\% |
| 33 | 824 |  | 59,692,571 |  | 4,580,215 |  | 4,775,406 | 96\% | 7.67\% | 8.00\% |
| 34 | 594 |  | 42,875,689 |  | 2,762,441 |  | 3,430,055 | 81\% | 6.44\% | 8.00\% |
| 35 | 442 |  | 31,609,378 |  | 2,283,919 |  | 2,528,750 | 90\% | 7.23\% | 8.00\% |
| 36 | 333 |  | 24,027,740 |  | 1,454,247 |  | 1,922,219 | 76\% | 6.05\% | 8.00\% |
| 37 | 269 |  | 19,610,539 |  | 854,159 |  | 1,568,843 | 54\% | 4.36\% | 8.00\% |
| 38 | 215 |  | 15,894,357 |  | 675,763 |  | 1,271,549 | 53\% | 4.25\% | 8.00\% |
| 39 | 149 |  | 10,980,313 |  | 459,065 |  | 878,425 | 52\% | 4.18\% | 8.00\% |
| 40 | 86 |  | 6,219,632 |  | 225,799 |  | 497,571 | 45\% | 3.63\% | 8.00\% |
| 41 | 67 |  | 5,214,155 |  | 157,663 |  | 417,132 | 38\% | 3.02\% | 8.00\% |
| 42 | 47 |  | 3,637,286 |  | 111,287 |  | 290,983 | 38\% | 3.06\% | 8.00\% |
| 43 | 28 |  | 2,110,011 |  | 28,658 |  | 168,801 | 17\% | 1.36\% | 8.00\% |
| 44 | 18 |  | 1,494,430 |  | 29,667 |  | 119,554 | 25\% | 1.99\% | 8.00\% |
| 45 | 12 |  | 1,009,045 |  | 13,637 |  | 80,724 | 17\% | 1.35\% | 8.00\% |
| Total | 343,691 |  | 20,708,279,932 |  | 1,701,544,279 |  | ,656,662,395 | 103\% | 8.22\% | 8.00\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT OVERTIME PAY EXPERIENCE BEFORE SERVICE RETIREMENT MEN AND WOMEN

TABLE 13B

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 1 | \$ | 56,993 | \$ | 66 | \$ | 4,559 | 1\% | 0.12\% | 8.00\% |
| 1 | 2 |  | 184,158 |  | 40,865 |  | 14,733 | 277\% | 22.19\% | 8.00\% |
| 2 | 1 |  | 72,704 |  | 10,839 |  | 5,816 | 186\% | 14.91\% | 8.00\% |
| 3 | 2 |  | 117,531 |  | 7,310 |  | 9,402 | 78\% | 6.22\% | 8.00\% |
| 4 | 17 |  | 920,769 |  | 30,495 |  | 73,662 | 41\% | 3.31\% | 8.00\% |
| 5 | 25 |  | 1,503,852 |  | 47,863 |  | 120,308 | 40\% | 3.18\% | 8.00\% |
| 6 | 34 |  | 2,171,792 |  | 50,655 |  | 173,743 | 29\% | 2.33\% | 8.00\% |
| 7 | 29 |  | 1,959,695 |  | 51,009 |  | 156,776 | 33\% | 2.60\% | 8.00\% |
| 8 | 28 |  | 1,605,986 |  | 51,883 |  | 128,479 | 40\% | 3.23\% | 8.00\% |
| 9 | 50 |  | 3,005,815 |  | 135,377 |  | 240,465 | 56\% | 4.50\% | 8.00\% |
| 10 | 99 |  | 6,099,948 |  | 219,387 |  | 487,996 | 45\% | 3.60\% | 8.00\% |
| 11 | 100 |  | 6,074,683 |  | 406,210 |  | 485,975 | 84\% | 6.69\% | 8.00\% |
| 12 | 95 |  | 6,131,499 |  | 272,304 |  | 490,520 | 56\% | 4.44\% | 8.00\% |
| 13 | 117 |  | 7,415,648 |  | 334,269 |  | 593,252 | 56\% | 4.51\% | 8.00\% |
| 14 | 116 |  | 7,202,195 |  | 300,592 |  | 576,176 | 52\% | 4.17\% | 8.00\% |
| 15 | 92 |  | 5,460,906 |  | 293,948 |  | 436,872 | 67\% | 5.38\% | 8.00\% |
| 16 | 121 |  | 7,549,276 |  | 455,497 |  | 603,942 | 75\% | 6.03\% | 8.00\% |
| 17 | 123 |  | 7,179,422 |  | 431,180 |  | 574,354 | 75\% | 6.01\% | 8.00\% |
| 18 | 141 |  | 8,465,699 |  | 481,537 |  | 677,256 | 71\% | 5.69\% | 8.00\% |
| 19 | 160 |  | 9,824,125 |  | 792,814 |  | 785,930 | 101\% | 8.07\% | 8.00\% |
| 20 | 360 |  | 22,398,648 |  | 1,175,913 |  | 1,791,892 | 66\% | 5.25\% | 8.00\% |
| 21 | 287 |  | 18,242,274 |  | 1,245,711 |  | 1,459,382 | 85\% | 6.83\% | 8.00\% |
| 22 | 303 |  | 18,978,419 |  | 1,205,155 |  | 1,518,273 | 79\% | 6.35\% | 8.00\% |
| 23 | 384 |  | 24,210,030 |  | 1,330,071 |  | 1,936,802 | 69\% | 5.49\% | 8.00\% |
| 24 | 520 |  | 34,218,261 |  | 2,369,196 |  | 2,737,461 | 87\% | 6.92\% | 8.00\% |
| 25 | 1,079 |  | 71,215,681 |  | 5,160,591 |  | 5,697,254 | 91\% | 7.25\% | 8.00\% |
| 26 | 699 |  | 46,446,890 |  | 3,500,530 |  | 3,715,751 | 94\% | 7.54\% | 8.00\% |
| 27 | 589 |  | 40,403,971 |  | 2,696,461 |  | 3,232,318 | 83\% | 6.67\% | 8.00\% |
| 28 | 475 |  | 32,896,047 |  | 2,298,501 |  | 2,631,684 | 87\% | 6.99\% | 8.00\% |
| 29 | 508 |  | 35,747,065 |  | 2,897,262 |  | 2,859,765 | 101\% | 8.10\% | 8.00\% |
| 30 | 560 |  | 39,989,723 |  | 3,469,784 |  | 3,199,178 | 108\% | 8.68\% | 8.00\% |
| 31 | 412 |  | 29,849,057 |  | 2,664,913 |  | 2,387,925 | 112\% | 8.93\% | 8.00\% |
| 32 | 321 |  | 23,551,573 |  | 1,994,851 |  | 1,884,126 | 106\% | 8.47\% | 8.00\% |
| 33 | 273 |  | 19,257,612 |  | 1,680,231 |  | 1,540,609 | 109\% | 8.73\% | 8.00\% |
| 34 | 199 |  | 14,044,064 |  | 1,095,465 |  | 1,123,525 | 98\% | 7.80\% | 8.00\% |
| 35 | 153 |  | 11,076,038 |  | 711,941 |  | 886,083 | 80\% | 6.43\% | 8.00\% |
| 36 | 105 |  | 7,386,213 |  | 806,085 |  | 590,897 | 136\% | 10.91\% | 8.00\% |
| 37 | 77 |  | 5,911,485 |  | 325,491 |  | 472,919 | 69\% | 5.51\% | 8.00\% |
| 38 | 57 |  | 4,485,129 |  | 311,200 |  | 358,810 | 87\% | 6.94\% | 8.00\% |
| 39 | 59 |  | 4,503,228 |  | 115,750 |  | 360,258 | 32\% | 2.57\% | 8.00\% |
| 40 | 46 |  | 3,486,088 |  | 220,032 |  | 278,887 | 79\% | 6.31\% | 8.00\% |
| 41 | 27 |  | 1,912,491 |  | 63,333 |  | 152,999 | 41\% | 3.31\% | 8.00\% |
| 42 | 13 |  | 968,087 |  | 29,844 |  | 77,447 | 39\% | 3.08\% | 8.00\% |
| 43 | 10 |  | 962,056 |  | 8,003 |  | 76,964 | 10\% | 0.83\% | 8.00\% |
| 44 | 7 |  | 427,801 |  | 2,028 |  | 34,224 | 6\% | 0.47\% | 8.00\% |
| 45 | 3 |  | 328,924 |  | 388 |  | 26,314 | 1\% | 0.12\% | 8.00\% |
| Total | 8,879 |  | 595,899,550 |  | 41,792,830 |  | 47,671,964 | 88\% | 7.01\% | 8.00\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT OVERTIME PAY EXPERIENCE BEFORE SERVICE RETIREMENT MEN AND WOMEN

TABLE 13B

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | 5) | (6) | (7) | (8) |
| 0 | 1 | \$ | 56,993 | \$ | 66 | \$ | 4,559 | 1\% | 0.12\% | 8.00\% |
| 1 | 2 |  | 184,158 |  | 40,865 |  | 14,733 | 277\% | 22.19\% | 8.00\% |
| 2 | 1 |  | 72,704 |  | 10,839 |  | 5,816 | 186\% | 14.91\% | 8.00\% |
| 3 | 2 |  | 117,531 |  | 7,310 |  | 9,402 | 78\% | 6.22\% | 8.00\% |
| 4 | 17 |  | 920,769 |  | 30,495 |  | 73,662 | 41\% | 3.31\% | 8.00\% |
| 5 | 25 |  | 1,503,852 |  | 47,863 |  | 120,308 | 40\% | 3.18\% | 8.00\% |
| 6 | 34 |  | 2,171,792 |  | 50,655 |  | 173,743 | 29\% | 2.33\% | 8.00\% |
| 7 | 29 |  | 1,959,695 |  | 51,009 |  | 156,776 | 33\% | 2.60\% | 8.00\% |
| 8 | 28 |  | 1,605,986 |  | 51,883 |  | 128,479 | 40\% | 3.23\% | 8.00\% |
| 9 | 50 |  | 3,005,815 |  | 135,377 |  | 240,465 | 56\% | 4.50\% | 8.00\% |
| 10 | 99 |  | 6,099,948 |  | 219,387 |  | 487,996 | 45\% | 3.60\% | 8.00\% |
| 11 | 100 |  | 6,074,683 |  | 406,210 |  | 485,975 | 84\% | 6.69\% | 8.00\% |
| 12 | 95 |  | 6,131,499 |  | 272,304 |  | 490,520 | 56\% | 4.44\% | 8.00\% |
| 13 | 117 |  | 7,415,648 |  | 334,269 |  | 593,252 | 56\% | 4.51\% | 8.00\% |
| 14 | 116 |  | 7,202,195 |  | 300,592 |  | 576,176 | 52\% | 4.17\% | 8.00\% |
| 15 | 92 |  | 5,460,906 |  | 293,948 |  | 436,872 | 67\% | 5.38\% | 8.00\% |
| 16 | 121 |  | 7,549,276 |  | 455,497 |  | 603,942 | 75\% | 6.03\% | 8.00\% |
| 17 | 123 |  | 7,179,422 |  | 431,180 |  | 574,354 | 75\% | 6.01\% | 8.00\% |
| 18 | 141 |  | 8,465,699 |  | 481,537 |  | 677,256 | 71\% | 5.69\% | 8.00\% |
| 19 | 160 |  | 9,824,125 |  | 792,814 |  | 785,930 | 101\% | 8.07\% | 8.00\% |
| 20 | 360 |  | 22,398,648 |  | 1,175,913 |  | 1,791,892 | 66\% | 5.25\% | 8.00\% |
| 21 | 287 |  | 18,242,274 |  | 1,245,711 |  | 1,459,382 | 85\% | 6.83\% | 8.00\% |
| 22 | 303 |  | 18,978,419 |  | 1,205,155 |  | 1,518,273 | 79\% | 6.35\% | 8.00\% |
| 23 | 384 |  | 24,210,030 |  | 1,330,071 |  | 1,936,802 | 69\% | 5.49\% | 8.00\% |
| 24 | 520 |  | 34,218,261 |  | 2,369,196 |  | 2,737,461 | 87\% | 6.92\% | 8.00\% |
| 25 | 1,079 |  | 71,215,681 |  | 5,160,591 |  | 5,697,254 | 91\% | 7.25\% | 8.00\% |
| 26 | 699 |  | 46,446,890 |  | 3,500,530 |  | 3,715,751 | 94\% | 7.54\% | 8.00\% |
| 27 | 589 |  | 40,403,971 |  | 2,696,461 |  | 3,232,318 | 83\% | 6.67\% | 8.00\% |
| 28 | 475 |  | 32,896,047 |  | 2,298,501 |  | 2,631,684 | 87\% | 6.99\% | 8.00\% |
| 29 | 508 |  | 35,747,065 |  | 2,897,262 |  | 2,859,765 | 101\% | 8.10\% | 8.00\% |
| 30 | 560 |  | 39,989,723 |  | 3,469,784 |  | 3,199,178 | 108\% | 8.68\% | 8.00\% |
| 31 | 412 |  | 29,849,057 |  | 2,664,913 |  | 2,387,925 | 112\% | 8.93\% | 8.00\% |
| 32 | 321 |  | 23,551,573 |  | 1,994,851 |  | 1,884,126 | 106\% | 8.47\% | 8.00\% |
| 33 | 273 |  | 19,257,612 |  | 1,680,231 |  | 1,540,609 | 109\% | 8.73\% | 8.00\% |
| 34 | 199 |  | 14,044,064 |  | 1,095,465 |  | 1,123,525 | 98\% | 7.80\% | 8.00\% |
| 35 | 153 |  | 11,076,038 |  | 711,941 |  | 886,083 | 80\% | 6.43\% | 8.00\% |
| 36 | 105 |  | 7,386,213 |  | 806,085 |  | 590,897 | 136\% | 10.91\% | 8.00\% |
| 37 | 77 |  | 5,911,485 |  | 325,491 |  | 472,919 | 69\% | 5.51\% | 8.00\% |
| 38 | 57 |  | 4,485,129 |  | 311,200 |  | 358,810 | 87\% | 6.94\% | 8.00\% |
| 39 | 59 |  | 4,503,228 |  | 115,750 |  | 360,258 | 32\% | 2.57\% | 8.00\% |
| 40 | 46 |  | 3,486,088 |  | 220,032 |  | 278,887 | 79\% | 6.31\% | 8.00\% |
| 41 | 27 |  | 1,912,491 |  | 63,333 |  | 152,999 | 41\% | 3.31\% | 8.00\% |
| 42 | 13 |  | 968,087 |  | 29,844 |  | 77,447 | 39\% | 3.08\% | 8.00\% |
| 43 | 10 |  | 962,056 |  | 8,003 |  | 76,964 | 10\% | 0.83\% | 8.00\% |
| 44 | 7 |  | 427,801 |  | 2,028 |  | 34,224 | 6\% | 0.47\% | 8.00\% |
| 45 | 3 |  | 328,924 |  | 388 |  | 26,314 | 1\% | 0.12\% | 8.00\% |
| Total | 8,879 |  | 595,899,550 |  | 41,792,830 |  | 47,671,964 | 88\% | 7.01\% | 8.00\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT
OVERTIME PAY EXPERIENCE BEFORE DISABLED RETIREMENT MEN AND WOMEN

TABLE 13C 10-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 1 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 2 | 3 | \$ | 143,907 | \$ | 6,059 | \$ | 11,513 | 53\% | 4.21\% | 8.00\% |
| 3 | 6 |  | 268,617 |  | 19,033 |  | 21,489 | 89\% | 7.09\% | 8.00\% |
| 4 | 6 |  | 308,343 |  | 28,332 |  | 24,667 | 115\% | 9.19\% | 8.00\% |
| 5 | 7 |  | 398,357 |  | 4,597 |  | 31,869 | 14\% | 1.15\% | 8.00\% |
| 6 | 10 |  | 556,847 |  | 12,166 |  | 44,548 | 27\% | 2.18\% | 8.00\% |
| 7 | 11 |  | 580,881 |  | 29,393 |  | 46,471 | 63\% | 5.06\% | 8.00\% |
| 8 | 17 |  | 968,736 |  | 79,797 |  | 77,499 | 103\% | 8.24\% | 8.00\% |
| 9 | 34 |  | 1,964,941 |  | 52,885 |  | 157,195 | 34\% | 2.69\% | 8.00\% |
| 10 | 56 |  | 3,098,601 |  | 162,297 |  | 247,888 | 65\% | 5.24\% | 8.00\% |
| 11 | 51 |  | 2,755,005 |  | 210,050 |  | 220,400 | 95\% | 7.62\% | 8.00\% |
| 12 | 66 |  | 3,346,128 |  | 94,146 |  | 267,690 | 35\% | 2.81\% | 8.00\% |
| 13 | 61 |  | 3,289,833 |  | 189,893 |  | 263,187 | 72\% | 5.77\% | 8.00\% |
| 14 | 53 |  | 2,627,302 |  | 169,106 |  | 210,184 | 80\% | 6.44\% | 8.00\% |
| 15 | 63 |  | 3,237,702 |  | 151,219 |  | 259,016 | 58\% | 4.67\% | 8.00\% |
| 16 | 69 |  | 3,629,745 |  | 248,854 |  | 290,380 | 86\% | 6.86\% | 8.00\% |
| 17 | 80 |  | 4,342,689 |  | 229,931 |  | 347,415 | 66\% | 5.29\% | 8.00\% |
| 18 | 64 |  | 3,430,184 |  | 179,156 |  | 274,415 | 65\% | 5.22\% | 8.00\% |
| 19 | 80 |  | 4,443,834 |  | 158,122 |  | 355,507 | 44\% | 3.56\% | 8.00\% |
| 20 | 84 |  | 4,425,829 |  | 168,550 |  | 354,066 | 48\% | 3.81\% | 8.00\% |
| 21 | 79 |  | 4,345,669 |  | 272,276 |  | 347,653 | 78\% | 6.27\% | 8.00\% |
| 22 | 61 |  | 3,480,827 |  | 143,714 |  | 278,466 | 52\% | 4.13\% | 8.00\% |
| 23 | 61 |  | 3,316,251 |  | 194,353 |  | 265,300 | 73\% | 5.86\% | 8.00\% |
| 24 | 53 |  | 2,985,739 |  | 102,366 |  | 238,859 | 43\% | 3.43\% | 8.00\% |
| 25 | 28 |  | 1,438,398 |  | 30,803 |  | 115,072 | 27\% | 2.14\% | 8.00\% |
| 26 | 32 |  | 1,913,639 |  | 129,884 |  | 153,091 | 85\% | 6.79\% | 8.00\% |
| 27 | 22 |  | 1,423,853 |  | 95,717 |  | 113,908 | 84\% | 6.72\% | 8.00\% |
| 28 | 14 |  | 898,157 |  | 60,380 |  | 71,853 | 84\% | 6.72\% | 8.00\% |
| 29 | 5 |  | 320,244 |  | 7,874 |  | 25,619 | 31\% | 2.46\% | 8.00\% |
| 30 | 5 |  | 273,331 |  | 23,572 |  | 21,867 | 108\% | 8.62\% | 8.00\% |
| 31 | 2 |  | 138,475 |  | 5,191 |  | 11,078 | 47\% | 3.75\% | 8.00\% |
| 32 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 33 | 3 |  | 167,431 |  | 470 |  | 13,394 | 4\% | 0.28\% | 8.00\% |
| 34 | 2 |  | 108,642 |  | 2,066 |  | 8,691 | 24\% | 1.90\% | 8.00\% |
| 35 | 2 |  | 105,579 |  | 1,983 |  | 8,446 | 23\% | 1.88\% | 8.00\% |
| 36 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 37 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 38 | 1 |  | 53,485 |  | 3,570 |  | 4,279 | 83\% | 6.67\% | 8.00\% |
| 39 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 40 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 41 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 42 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 43 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| Total | 1,191 |  | 64,787,200 |  | 3,267,805 |  | 5,182,976 | 63\% | 5.04\% | 8.00\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT
OVERTIME PAY EXPERIENCE BEFORE DISABLED RETIREMENT MEN AND WOMEN

TABLE 13C

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 1 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 2 | 3 | \$ | 143,907 | \$ | 6,059 | \$ | 11,513 | 53\% | 4.21\% | 8.00\% |
| 3 | 6 |  | 268,617 |  | 19,033 |  | 21,489 | 89\% | 7.09\% | 8.00\% |
| 4 | 6 |  | 308,343 |  | 28,332 |  | 24,667 | 115\% | 9.19\% | 8.00\% |
| 5 | 7 |  | 398,357 |  | 4,597 |  | 31,869 | 14\% | 1.15\% | 8.00\% |
| 6 | 10 |  | 556,847 |  | 12,166 |  | 44,548 | 27\% | 2.18\% | 8.00\% |
| 7 | 11 |  | 580,881 |  | 29,393 |  | 46,471 | 63\% | 5.06\% | 8.00\% |
| 8 | 17 |  | 968,736 |  | 79,797 |  | 77,499 | 103\% | 8.24\% | 8.00\% |
| 9 | 34 |  | 1,964,941 |  | 52,885 |  | 157,195 | 34\% | 2.69\% | 8.00\% |
| 10 | 56 |  | 3,098,601 |  | 162,297 |  | 247,888 | 65\% | 5.24\% | 8.00\% |
| 11 | 51 |  | 2,755,005 |  | 210,050 |  | 220,400 | 95\% | 7.62\% | 8.00\% |
| 12 | 66 |  | 3,346,128 |  | 94,146 |  | 267,690 | 35\% | 2.81\% | 8.00\% |
| 13 | 61 |  | 3,289,833 |  | 189,893 |  | 263,187 | 72\% | 5.77\% | 8.00\% |
| 14 | 53 |  | 2,627,302 |  | 169,106 |  | 210,184 | 80\% | 6.44\% | 8.00\% |
| 15 | 63 |  | 3,237,702 |  | 151,219 |  | 259,016 | 58\% | 4.67\% | 8.00\% |
| 16 | 69 |  | 3,629,745 |  | 248,854 |  | 290,380 | 86\% | 6.86\% | 8.00\% |
| 17 | 80 |  | 4,342,689 |  | 229,931 |  | 347,415 | 66\% | 5.29\% | 8.00\% |
| 18 | 64 |  | 3,430,184 |  | 179,156 |  | 274,415 | 65\% | 5.22\% | 8.00\% |
| 19 | 80 |  | 4,443,834 |  | 158,122 |  | 355,507 | 44\% | 3.56\% | 8.00\% |
| 20 | 84 |  | 4,425,829 |  | 168,550 |  | 354,066 | 48\% | 3.81\% | 8.00\% |
| 21 | 79 |  | 4,345,669 |  | 272,276 |  | 347,653 | 78\% | 6.27\% | 8.00\% |
| 22 | 61 |  | 3,480,827 |  | 143,714 |  | 278,466 | 52\% | 4.13\% | 8.00\% |
| 23 | 61 |  | 3,316,251 |  | 194,353 |  | 265,300 | 73\% | 5.86\% | 8.00\% |
| 24 | 53 |  | 2,985,739 |  | 102,366 |  | 238,859 | 43\% | 3.43\% | 8.00\% |
| 25 | 28 |  | 1,438,398 |  | 30,803 |  | 115,072 | 27\% | 2.14\% | 8.00\% |
| 26 | 32 |  | 1,913,639 |  | 129,884 |  | 153,091 | 85\% | 6.79\% | 8.00\% |
| 27 | 22 |  | 1,423,853 |  | 95,717 |  | 113,908 | 84\% | 6.72\% | 8.00\% |
| 28 | 14 |  | 898,157 |  | 60,380 |  | 71,853 | 84\% | 6.72\% | 8.00\% |
| 29 | 5 |  | 320,244 |  | 7,874 |  | 25,619 | $31 \%$ | 2.46\% | 8.00\% |
| 30 | 5 |  | 273,331 |  | 23,572 |  | 21,867 | 108\% | 8.62\% | 8.00\% |
| 31 | 2 |  | 138,475 |  | 5,191 |  | 11,078 | 47\% | 3.75\% | 8.00\% |
| 32 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 33 | 3 |  | 167,431 |  | 470 |  | 13,394 | 4\% | 0.28\% | 8.00\% |
| 34 | 2 |  | 108,642 |  | 2,066 |  | 8,691 | 24\% | 1.90\% | 8.00\% |
| 35 | 2 |  | 105,579 |  | 1,983 |  | 8,446 | 23\% | 1.88\% | 8.00\% |
| 36 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 37 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 38 | 1 |  | 53,485 |  | 3,570 |  | 4,279 | 83\% | 6.67\% | 8.00\% |
| 39 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 40 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 41 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 42 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 43 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 8.00\% |
| Total | 1,191 |  | 64,787,200 |  | 3,267,805 |  | 5,182,976 | 63\% | 5.04\% | 8.00\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TRANSIT <br> OVERTIME PAY EXPERIENCE FOR ALL YEARS <br> MEN AND WOMEN



| Table Number | Table Type | NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION EXPERIENCE STUDY RESULTS OVERVIEW |  |  |  |  | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 4-YEAR PERIOD ENDING 6/30/2013* |  | 10-YEAR PERIOD ENDING 6/30/2013* |  |  |  |
|  |  | Expected | Average Number of Decrements per Year | Ratio of Actual to |  | Average Number of Decrements per Year |  |
|  |  |  |  | Expected | Proposed |  |  |
|  | Service Retiree Mortality |  |  |  |  |  | The proposed assumption is based on actual plan experience. |
| 1A | Men | 96\% | 279 | 98\% | 101\% | 284 | Future mortality improvements will be projected using scale MP- |
| 18 | Women | 113\% | 1 | 88\% | 93\% | 1 | 2014. The following NYCERS groups were combined for this |
| 1 C | Men \& Women | 96\% | 280 | 98\% | 101\% | 285 | study: General, Transit, Sanitation, Corrections, and TBTA. |
| 1D | By Year |  |  |  |  |  |  |
|  | Disabled Retiree Mortality |  |  |  |  |  | The proposed assumption is based on actual plan experience. |
| 2A | Men | 92\% | 68 | 93\% | 75\% | 68 | Future mortality improvements will be projected using scale MP- |
| 2B | Women | 150\% | 0 | 181\% | 105\% | 0 | 2014. The following NYCERS groups were combined for this |
| 2 C | Men \& Women | 92\% | 69 | 94\% | 75\% | 68 | study: General, Transit, Sanitation, Corrections, and TBTA. |
| 2D | By Year |  |  |  |  |  |  |
|  | Active Member Withdrawals |  |  |  |  |  | The current assumption is reasonable. No change is recommended. |
| 3A | Men | 94\% | 44 | 112\% | 112\% | 56 |  |
| 3B | Women | 128\% | 2 | 116\% | 116\% | 2 |  |
| 3 C | Men \& Women | 95\% | 45 | 113\% | 113\% | 57 |  |
| 3D | By Year |  |  |  |  |  |  |
|  | Active Member Service Retirements |  |  |  |  |  | Experience has been consistently lower than expected. In certain |
|  | In 1st Year of Eligibility |  |  |  |  |  | places, the current assumption should be lowered to match |
| 4A | Total | 48\% | 67 | 49\% | 58\% | 92 | experience. |
| 4B | Elected | 74\% | 48 | 49\% | 54\% | 71 |  |
| 4 C | Mandated | 25\% | 19 | 50\% | 80\% | 21 |  |
|  | In 2nd Year of Eligibility |  |  |  |  |  |  |
| 5A | Total | 97\% | 48 | 120\% | 120\% | 63 |  |
| 5B | Elected | 108\% | 42 | 114\% | 114\% | 51 |  |
| 5 C | Mandated | 58\% | 6 | 156\% | 156\% | 12 |  |
|  | After 2nd Year of Eligibility |  |  |  |  |  |  |
| 6A | Total | 63\% | 125 | 79\% | 94\% | 131 |  |
| 6B | Elected | 71\% | 119 | 76\% | 96\% | 105 |  |
| $6^{6}$ | Mandated | 19\% | 6 | 90\% | 90\% | 26 |  |
| 6 D | By Year |  |  |  |  |  |  |
|  | Reduced Service Retirements |  |  |  |  |  | Due to limited experience, we recommend using the NYCERS |
| 7A | Total | 93\% | 1 | 72\% | 72\% | 1 | General group's reduced retirement proposed assumption. |
| 7B | By Year |  |  |  |  |  |  |



## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION RETIREMENT ASSUMPTIONS AND EXPERIENCE FOR THE FOUR-YEAR PERIOD ENDING 6/30/2013




## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION

 RETIREMENT ASSUMPTIONS AND EXPERIENCE FOR THE FOUR-YEAR PERIOD ENDING 6/30/2013

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION

 ORDINARY DISABILITY ASSUMPTIONS AND EXPERIENCE FOR THE EIGHT-YEAR PERIOD ENDING 6/30/2011

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION

 ACCIDENTAL DISABILITY ASSUMPTIONS AND EXPERIENCE FOR THE EIGHT-YEAR PERIOD ENDING 6/30/20112.50\%

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION

OVERTIME ASSUMPTIONS AND EXPERIENCE FOR THE TEN-YEAR PERIOD ENDING 6/30/2013

-Current - Actual ---Proposed

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION MORTALITY EXPERIENCE OF SERVICE RETIREES MEN AND WOMEN

| Age | TABLE 1C |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 1 | 0.000000 | 0.1597\% | 0.1800\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 4 | 0.000000 | 0.2033\% | 0.1964\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 24 | 0.000000 | 0.2442\% | 0.2140\% | 0.1 | 0.1 | 0\% | 0\% |
| 44 | 0 | 44 | 0.000000 | 0.2825\% | 0.2329\% | 0.1 | 0.1 | 0\% | 0\% |
| 45 | 0 | 92 | 0.000000 | 0.3161\% | 0.2524\% | 0.3 | 0.2 | 0\% | 0\% |
| 46 | 0 | 143 | 0.000000 | 0.3459\% | 0.2739\% | 0.5 | 0.4 | 0\% | 0\% |
| 47 | 1 | 178 | 0.005618 | 0.3705\% | 0.2959\% | 0.7 | 0.5 | 152\% | 190\% |
| 48 | 0 | 211 | 0.000000 | 0.3934\% | 0.3196\% | 0.8 | 0.7 | 0\% | 0\% |
| 49 | 0 | 189 | 0.000000 | 0.4135\% | 0.3449\% | 0.8 | 0.7 | 0\% | 0\% |
| 50 | 0 | 187 | 0.000000 | 0.4296\% | 0.3713\% | 0.8 | 0.7 | 0\% | 0\% |
| 51 | 0 | 209 | 0.000000 | 0.4843\% | 0.3987\% | 1.0 | 0.8 | 0\% | 0\% |
| 52 | 1 | 225 | 0.004444 | 0.5405\% | 0.4288\% | 1.2 | 1.0 | 82\% | 104\% |
| 53 | 3 | 323 | 0.009288 | 0.6068\% | 0.4646\% | 2.0 | 1.5 | 153\% | 200\% |
| 54 | 1 | 546 | 0.001832 | 0.6758\% | 0.5043\% | 3.7 | 2.8 | 27\% | 36\% |
| 55 | 6 | 797 | 0.007528 | 0.7537\% | 0.5490\% | 6.0 | 4.4 | 100\% | 137\% |
| 56 | 6 | 1,017 | 0.005900 | 0.8113\% | 0.5976\% | 8.3 | 6.1 | 73\% | 99\% |
| 57 | 9 | 1,116 | 0.008065 | 0.8694\% | 0.6521\% | 9.7 | 7.3 | 93\% | 124\% |
| 58 | 14 | 1,095 | 0.012785 | 0.9289\% | 0.7134\% | 10.2 | 7.8 | 138\% | 179\% |
| 59 | 11 | 1,010 | 0.010891 | 0.9817\% | 0.7821\% | 9.9 | 7.9 | 111\% | 139\% |
| 60 | 9 | 991 | 0.009082 | 1.0358\% | 0.8601\% | 10.3 | 8.5 | 88\% | 106\% |
| 61 | 10 | 1,013 | 0.009872 | 1.1522\% | 0.9451\% | 11.7 | 9.6 | 86\% | 104\% |
| 62 | 6 | 1,207 | 0.004971 | 1.2578\% | 1.0388\% | 15.2 | 12.5 | 40\% | 48\% |
| 63 | 13 | 1,368 | 0.009503 | 1.3716\% | 1.1418\% | 18.8 | 15.6 | 69\% | 83\% |
| 64 | 25 | 1,409 | 0.017743 | 1.4721\% | 1.2550\% | 20.7 | 17.7 | 121\% | 141\% |
| 65 | 16 | 1,408 | 0.011364 | 1.5697\% | 1.3793\% | 22.1 | 19.4 | 72\% | 82\% |
| 66 | 13 | 1,308 | 0.009939 | 1.7133\% | 1.5160\% | 22.4 | 19.8 | 58\% | 66\% |
| 67 | 25 | 1,199 | 0.020851 | 1.8443\% | 1.6665\% | 22.1 | 20.0 | 113\% | 125\% |
| 68 | 18 | 1,144 | 0.015734 | 1.9593\% | 1.8316\% | 22.4 | 21.0 | 80\% | 86\% |
| 69 | 25 | 1,091 | 0.022915 | 2.0890\% | 2.0131\% | 22.8 | 22.0 | 110\% | 114\% |
| 70 | 12 | 938 | 0.012793 | 2.1996\% | 2.2112\% | 20.6 | 20.7 | 58\% | 58\% |
| 71 | 16 | 823 | 0.019441 | 2.3971\% | 2.4308\% | 19.7 | 20.0 | 81\% | 80\% |
| 72 | 20 | 741 | 0.026991 | 2.5983\% | 2.6715\% | 19.3 | 19.8 | 104\% | 101\% |
| 73 | 15 | 638 | 0.023511 | 2.8033\% | 2.9359\% | 17.9 | 18.7 | 84\% | 80\% |
| 74 | 15 | 583 | 0.025729 | 3.0138\% | 3.2281\% | 17.6 | 18.8 | 85\% | 80\% |
| 75 | 16 | 546 | 0.029304 | 3.2537\% | 3.5478\% | 17.8 | 19.4 | 90\% | 83\% |
| 76 | 16 | 527 | 0.030361 | 3.7509\% | 3.8993\% | 19.8 | 20.5 | 81\% | 78\% |
| 77 | 31 | 540 | 0.057407 | 4.2954\% | 4.2879\% | 23.2 | 23.2 | 134\% | 134\% |
| 78 | 26 | 543 | 0.047882 | 4.8575\% | 4.7128\% | 26.4 | 25.6 | 99\% | 102\% |
| 79 | 35 | 559 | 0.062612 | 5.4395\% | 5.1798\% | 30.4 | 29.0 | 115\% | 121\% |
| 80 | 47 | 595 | 0.078992 | 6.0416\% | 5.6931\% | 35.9 | 33.9 | 131\% | 139\% |
| 81 | 37 | 616 | 0.060065 | 6.6940\% | 6.2545\% | 41.2 | 38.5 | 90\% | 96\% |
| 82 | 46 | 677 | 0.067947 | 7.3567\% | 6.8718\% | 49.8 | 46.5 | 92\% | 99\% |
| 83 | 58 | 706 | 0.082153 | 7.9681\% | 7.5530\% | 56.3 | 53.3 | 103\% | 109\% |
| 84 | 53 | 672 | 0.078869 | 8.6484\% | 8.3011\% | 58.1 | 55.8 | 91\% | 95\% |
| 85 | 59 | 617 | 0.095624 | 9.2680\% | 9.1270\% | 57.2 | 56.3 | 103\% | 105\% |
| 86 | 48 | 526 | 0.091255 | 10.4648\% | 10.0358\% | 55.0 | 52.8 | 87\% | 91\% |
| 87 | 50 | 453 | 0.110375 | 11.7953\% | 11.0303\% | 53.4 | 50.0 | 94\% | 100\% |
| 88 | 47 | 379 | 0.124011 | 13.1900\% | 12.1233\% | 50.0 | 45.9 | 94\% | 102\% |
| 89 | 43 | 327 | 0.131498 | 14.5331\% | 13.3246\% | 47.5 | 43.6 | 90\% | 99\% |
| 90 | 55 | 265 | 0.207547 | 16.0483\% | 14.6450\% | 42.5 | 38.8 | 129\% | 142\% |
| 91 | 36 | 207 | 0.173913 | 17.8244\% | 16.0962\% | 36.9 | 33.3 | 98\% | 108\% |
| 92 | 31 | 173 | 0.179191 | 19.7255\% | 17.6912\% | 34.1 | 30.6 | 91\% | 101\% |
| 93 | 31 | 138 | 0.224638 | 21.4199\% | 19.4065\% | 29.6 | 26.8 | 105\% | 116\% |
| 94 | 20 | 92 | 0.217391 | 23.1421\% | 21.3088\% | 21.3 | 19.6 | 94\% | 102\% |
| 95 | 22 | 57 | 0.385965 | 25.2240\% | 23.3784\% | 14.4 | 13.3 | 153\% | 165\% |
| 96 | 8 | 32 | 0.250000 | 26.7968\% | 25.3843\% | 8.6 | 8.1 | 93\% | 98\% |
| 97 | 4 | 20 | 0.200000 | 27.6367\% | 26.8552\% | 5.5 | 5.4 | 72\% | 74\% |
| 98 | 5 | 15 | 0.333333 | 28.8832\% | 28.9599\% | 4.3 | 4.3 | 115\% | 115\% |
| 99 | 2 | 12 | 0.166667 | 31.0801\% | 32.7473\% | 3.7 | 3.9 | 54\% | 51\% |
| Subtotal | 1,116 | 32,566 |  |  |  | 1,162.5 | 1,085.5 | 96\% | 103\% |
| 100 or more | 4 | 9 | 0.444444 | 37.1685\% | 45.5092\% | 3.3 | 4.1 | 120\% | 98\% |
| Total | 1,120 | 32,575 |  |  |  | 1,165.8 | 1,089.6 | 96\% | 103\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION MORTALITY EXPERIENCE OF SERVICE RETIREES <br> MEN AND WOMEN

| Age | TABLE 1C GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 73 | 0.000000 | 0.2639\% | 0.2240\% | 0.2 | 0.2 | 0\% | 0\% |
| 45-49 | 1 | 813 | 0.001230 | 0.3759\% | 0.3047\% | 3.1 | 2.5 | 33\% | 40\% |
| 50-54 | 5 | 1,490 | 0.003356 | 0.5826\% | 0.4528\% | 8.7 | 6.7 | 58\% | 74\% |
| 55-59 | 46 | 5,035 | 0.009136 | 0.8748\% | 0.6642\% | 44.0 | 33.4 | 104\% | 138\% |
| 60-64 | 63 | 5,988 | 0.010521 | 1.2796\% | 1.0678\% | 76.6 | 63.9 | 82\% | 99\% |
| 65-69 | 97 | 6,150 | 0.015772 | 1.8184\% | 1.6609\% | 111.8 | 102.1 | 87\% | 95\% |
| 70-74 | 78 | 3,723 | 0.020951 | 2.5536\% | 2.6348\% | 95.1 | 98.1 | 82\% | 80\% |
| 75-79 | 124 | 2,715 | 0.045672 | 4.3282\% | 4.3322\% | 117.5 | 117.6 | 106\% | 105\% |
| 80-84 | 241 | 3,266 | 0.073791 | 7.3901\% | 6.9820\% | 241.4 | 228.0 | 100\% | 106\% |
| 85-89 | 247 | 2,302 | 0.107298 | 11.4324\% | 10.7988\% | 263.2 | 248.6 | 94\% | 99\% |
| 90-94 | 173 | 875 | 0.197714 | 18.7886\% | 17.0422\% | 164.4 | 149.1 | 105\% | 116\% |
| 95-99 | 41 | 136 | 0.301471 | 26.8692\% | 25.8039\% | 36.5 | 35.1 | 112\% | 117\% |
| 100+ | 4 | 9 | 0.444444 | 37.1685\% | 45.5092\% | 3.3 | 4.1 | 120\% | 98\% |
| Total | 1,120 | 32,575 |  |  |  | 1,165.8 | 1,089.6 | 96\% | 103\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION MORTALITY EXPERIENCE OF SERVICE RETIREES MEN AND WOMEN

|  | TABLE 1C |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 7 | 0.000000 | 0.1641\% | 0.1954\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 17 | 0.000000 | 0.2095\% | 0.2139\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 48 | 0.000000 | 0.2493\% | 0.2324\% | 0.1 | 0.1 | 0\% | 0\% |
| 44 | 0 | 77 | 0.000000 | 0.2907\% | 0.2531\% | 0.2 | 0.2 | 0\% | 0\% |
| 45 | 0 | 122 | 0.000000 | 0.3293\% | 0.2747\% | 0.4 | 0.3 | 0\% | 0\% |
| 46 | 0 | 187 | 0.000000 | 0.3612\% | 0.2968\% | 0.7 | 0.6 | 0\% | 0\% |
| 47 | 1 | 273 | 0.003663 | 0.3886\% | 0.3193\% | 1.1 | 0.9 | 94\% | 115\% |
| 48 | 3 | 402 | 0.007463 | 0.4139\% | 0.3429\% | 1.7 | 1.4 | 180\% | 218\% |
| 49 | 1 | 537 | 0.001862 | 0.4361\% | 0.3674\% | 2.3 | 2.0 | 43\% | 51\% |
| 50 | 4 | 727 | 0.005502 | 0.4542\% | 0.3924\% | 3.3 | 2.9 | 121\% | 140\% |
| 51 | 9 | 956 | 0.009414 | 0.5156\% | 0.4190\% | 4.9 | 4.0 | 183\% | 225\% |
| 52 | 6 | 1,195 | 0.005021 | 0.5788\% | 0.4474\% | 6.9 | 5.3 | 87\% | 112\% |
| 53 | 8 | 1,421 | 0.005630 | 0.6479\% | 0.4793\% | 9.2 | 6.8 | 87\% | 117\% |
| 54 | 6 | 1,684 | 0.003563 | 0.7199\% | 0.5154\% | 12.1 | 8.7 | 49\% | 69\% |
| 55 | 15 | 1,968 | 0.007622 | 0.7987\% | 0.5568\% | 15.7 | 11.0 | 95\% | 137\% |
| 56 | 19 | 2,404 | 0.007903 | 0.8574\% | 0.6042\% | 20.6 | 14.5 | 92\% | 131\% |
| 57 | 24 | 2,706 | 0.008869 | 0.9161\% | 0.6592\% | 24.8 | 17.8 | 97\% | 135\% |
| 58 | 27 | 2,782 | 0.009705 | 0.9760\% | 0.7229\% | 27.2 | 20.1 | 99\% | 134\% |
| 59 | 23 | 2,783 | 0.008264 | 1.0315\% | 0.7964\% | 28.7 | 22.2 | 80\% | 104\% |
| 60 | 22 | 2,897 | 0.007594 | 1.0871\% | 0.8807\% | 31.5 | 25.5 | 70\% | 86\% |
| 61 | 28 | 3,005 | 0.009318 | 1.2060\% | 0.9755\% | 36.2 | 29.3 | 77\% | 96\% |
| 62 | 25 | 3,038 | 0.008229 | 1.3164\% | 1.0809\% | 40.0 | 32.8 | 63\% | 76\% |
| 63 | 25 | 3,083 | 0.008109 | 1.4310\% | 1.1971\% | 44.1 | 36.9 | 57\% | 68\% |
| 64 | 48 | 3,040 | 0.015789 | 1.5358\% | 1.3245\% | 46.7 | 40.3 | 103\% | 119\% |
| 65 | 29 | 2,915 | 0.009949 | 1.6376\% | 1.4640\% | 47.7 | 42.7 | 61\% | 68\% |
| 66 | 44 | 2,663 | 0.016523 | 1.7820\% | 1.6166\% | 47.5 | 43.1 | 93\% | 102\% |
| 67 | 44 | 2,382 | 0.018472 | 1.9179\% | 1.7839\% | 45.7 | 42.5 | 96\% | 104\% |
| 68 | 45 | 2,228 | 0.020197 | 2.0437\% | 1.9666\% | 45.5 | 43.8 | 99\% | 103\% |
| 69 | 39 | 2,070 | 0.018841 | 2.1789\% | 2.1674\% | 45.1 | 44.9 | 86\% | 87\% |
| 70 | 29 | 1,891 | 0.015336 | 2.3021\% | 2.3871\% | 43.5 | 45.1 | 67\% | 64\% |
| 71 | 43 | 1,765 | 0.024363 | 2.5086\% | 2.6291\% | 44.3 | 46.4 | 97\% | 93\% |
| 72 | 43 | 1,688 | 0.025474 | 2.7193\% | 2.8943\% | 45.9 | 48.9 | 94\% | 88\% |
| 73 | 33 | 1,638 | 0.020147 | 2.9345\% | 3.1858\% | 48.1 | 52.2 | 69\% | 63\% |
| 74 | 43 | 1,661 | 0.025888 | 3.1542\% | 3.5053\% | 52.4 | 58.2 | 82\% | 74\% |
| 75 | 66 | 1,704 | 0.038732 | 3.3948\% | 3.8537\% | 57.8 | 65.7 | 114\% | 101\% |
| 76 | 71 | 1,799 | 0.039466 | 3.9131\% | 4.2358\% | 70.4 | 76.2 | 101\% | 93\% |
| 77 | 78 | 1,900 | 0.041053 | 4.4661\% | 4.6549\% | 84.9 | 88.4 | 92\% | 88\% |
| 78 | 105 | 1,952 | 0.053791 | 5.0352\% | 5.1120\% | 98.3 | 99.8 | 107\% | 105\% |
| 79 | 119 | 1,970 | 0.060406 | 5.6213\% | 5.6128\% | 110.7 | 110.6 | 107\% | 108\% |
| 80 | 138 | 1,953 | 0.070661 | 6.2245\% | 6.1620\% | 121.6 | 120.3 | 114\% | 115\% |
| 81 | 142 | 1,895 | 0.074934 | 6.8793\% | 6.7636\% | 130.4 | 128.2 | 109\% | 111\% |
| 82 | 143 | 1,814 | 0.078831 | 7.5401\% | 7.4230\% | 136.8 | 134.7 | 105\% | 106\% |
| 83 | 145 | 1,723 | 0.084156 | 8.1649\% | 8.1455\% | 140.7 | 140.3 | 103\% | 103\% |
| 84 | 141 | 1,585 | 0.088959 | 8.8336\% | 8.9380\% | 140.0 | 141.7 | 101\% | 100\% |
| 85 | 146 | 1,438 | 0.101530 | 9.4642\% | 9.8108\% | 136.1 | 141.1 | 107\% | 103\% |
| 86 | 119 | 1,238 | 0.096123 | 10.6834\% | 10.7678\% | 132.3 | 133.3 | 90\% | 89\% |
| 87 | 141 | 1,068 | 0.132022 | 11.9964\% | 11.8058\% | 128.1 | 126.1 | 110\% | 112\% |
| 88 | 117 | 868 | 0.134793 | 13.3744\% | 12.9508\% | 116.1 | 112.4 | 101\% | 104\% |
| 89 | 106 | 702 | 0.150997 | 14.7324\% | 14.1981\% | 103.4 | 99.7 | 102\% | 106\% |
| 90 | 94 | 551 | 0.170599 | 16.2123\% | 15.5588\% | 89.3 | 85.7 | 105\% | 110\% |
| 91 | 73 | 414 | 0.176329 | 17.9685\% | 17.0086\% | 74.4 | 70.4 | 98\% | 104\% |
| 92 | 61 | 315 | 0.193651 | 19.7913\% | 18.5897\% | 62.3 | 58.6 | 98\% | 104\% |
| 93 | 56 | 233 | 0.240343 | 21.5115\% | 20.3241\% | 50.1 | 47.4 | 112\% | 118\% |
| 94 | 35 | 154 | 0.227273 | 23.2186\% | 22.2020\% | 35.8 | 34.2 | 98\% | 102\% |
| 95 | 29 | 97 | 0.298969 | 25.1403\% | 24.1756\% | 24.4 | 23.5 | 119\% | 124\% |
| 96 | 11 | 60 | 0.183333 | 26.7323\% | 26.2371\% | 16.0 | 15.7 | 69\% | 70\% |
| 97 | 12 | 44 | 0.272727 | 28.3684\% | 28.6603\% | 12.5 | 12.6 | 96\% | 95\% |
| 98 | 9 | 29 | 0.310345 | 29.9933\% | 31.2165\% | 8.7 | 9.1 | 103\% | 99\% |
| 99 | 5 | 19 | 0.263158 | 31.7359\% | 34.5332\% | 6.0 | 6.6 | 83\% | 76\% |
| Subtotal | 2,848 | 81,785 |  |  |  | 2,911.3 | 2,833.4 | 98\% | 101\% |
| 100 or more | 7 | 13 | 0.538462 | 37.1685\% | 47.0399\% | 4.8 | 6.1 | 145\% | 114\% |
| Total | 2,855 | 81,798 |  |  |  | 2,916.1 | 2,839.5 | 98\% | 101\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION MORTALITY EXPERIENCE OF SERVICE RETIREES <br> MEN AND WOMEN

| Age | TABLE 1C GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Rate |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 149 | 0.000000 | 0.2621\% | 0.2392\% | 0.4 | 0.4 | 0\% | 0\% |
| 45-49 | 5 | 1,521 | 0.003287 | 0.4039\% | 0.3362\% | 6.1 | 5.1 | 81\% | 98\% |
| 50-54 | 33 | 5,983 | 0.005516 | 0.6097\% | 0.4629\% | 36.5 | 27.7 | 90\% | 119\% |
| 55-59 | 108 | 12,643 | 0.008542 | 0.9252\% | 0.6770\% | 117.0 | 85.6 | 92\% | 126\% |
| 60-64 | 148 | 15,063 | 0.009825 | 1.3180\% | 1.0943\% | 198.5 | 164.8 | 75\% | 90\% |
| 65-69 | 201 | 12,258 | 0.016397 | 1.8887\% | 1.7695\% | 231.5 | 216.9 | 87\% | 93\% |
| 70-74 | 191 | 8,643 | 0.022099 | 2.7094\% | 2.9018\% | 234.2 | 250.8 | 82\% | 76\% |
| 75-79 | 439 | 9,325 | 0.047078 | 4.5268\% | 4.7257\% | 422.1 | 440.7 | 104\% | 100\% |
| 80-84 | 709 | 8,970 | 0.079041 | 7.4626\% | 7.4156\% | 669.4 | 665.2 | 106\% | 107\% |
| 85-89 | 629 | 5,314 | 0.118367 | 11.5918\% | 11.5271\% | 616.0 | 612.6 | 102\% | 103\% |
| 90-94 | 319 | 1,667 | 0.191362 | 18.7127\% | 17.7713\% | 311.9 | 296.2 | 102\% | 108\% |
| 95-99 | 66 | 249 | 0.265060 | 27.1628\% | 27.0752\% | 67.6 | 67.4 | 98\% | 98\% |
| 100+ | 7 | 13 | 0.538462 | 37.1685\% | 47.0399\% | 4.8 | 6.1 | 145\% | 114\% |
| Total | 2,855 | 81,798 |  |  |  | 2,916.1 | 2,839.5 | 98\% | 101\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION MORTALITY EXPERIENCE OF SERVICE RETIREES MEN AND WOMEN

| Plan <br> Year | TABLE 1D |  |  | 10-YEAR PE | Mortality Rate |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending June 30, | Life Years Exposed | Actual Deaths | Expected Deaths | Actual / Expected | Actual $(3) /(2)$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 7,978 | 297 | 229.4 | 129\% | 3.7227\% | 2.8750\% |
| 2005 | 8,141 | 283 | 235.9 | 120\% | 3.4762\% | 2.8974\% |
| 2006 | 8,175 | 268 | 242.7 | 110\% | 3.2783\% | 2.9690\% |
| 2007 | 8,306 | 299 | 249.0 | 120\% | 3.5998\% | 2.9981\% |
| 2008 | 8,311 | 267 | 252.2 | 106\% | 3.2126\% | 3.0344\% |
| 2009 | 8,315 | 321 | 257.1 | 125\% | 3.8605\% | 3.0922\% |
| 2010 | 8,130 | 276 | 256.4 | 108\% | 3.3948\% | 3.1536\% |
| 2011 | 8,156 | 284 | 258.7 | 110\% | 3.4821\% | 3.1717\% |
| 2012 | 8,168 | 277 | 259.9 | 107\% | 3.3913\% | 3.1821\% |
| 2013 | 8,122 | 283 | 260.4 | 109\% | 3.4844\% | 3.2056\% |
| Total | 81,802 | 2,855 | 2,501.6 | 114\% | 3.4901\% | 3.0581\% |

[^5]
## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN AND WOMEN

|  | TABLE 2C |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 27 | 0.000000 | 0.9051\% | 0.4461\% | 0.2 | 0.1 | 0\% | 0\% |
| 42 | 1 | 27 | 0.037037 | 0.9249\% | 0.5537\% | 0.2 | 0.1 | 400\% | 669\% |
| 43 | 0 | 36 | 0.000000 | 0.9476\% | 0.6941\% | 0.3 | 0.2 | 0\% | 0\% |
| 44 | 1 | 53 | 0.018868 | 0.9702\% | 0.8257\% | 0.5 | 0.4 | 194\% | 229\% |
| 45 | 1 | 60 | 0.016667 | 0.9937\% | 0.9497\% | 0.6 | 0.6 | 168\% | 175\% |
| 46 | 0 | 76 | 0.000000 | 1.0178\% | 1.0722\% | 0.8 | 0.8 | 0\% | 0\% |
| 47 | 1 | 84 | 0.011905 | 1.0428\% | 1.1970\% | 0.9 | 1.0 | 114\% | 99\% |
| 48 | 0 | 92 | 0.000000 | 1.0680\% | 1.3125\% | 1.0 | 1.2 | 0\% | 0\% |
| 49 | 0 | 90 | 0.000000 | 1.0935\% | 1.4237\% | 1.0 | 1.3 | 0\% | 0\% |
| 50 | 0 | 92 | 0.000000 | 1.1192\% | 1.5272\% | 1.0 | 1.4 | 0\% | 0\% |
| 51 | 3 | 89 | 0.033708 | 1.1454\% | 1.6325\% | 1.0 | 1.5 | 294\% | 206\% |
| 52 | 0 | 76 | 0.000000 | 1.1756\% | 1.7189\% | 0.9 | 1.3 | 0\% | 0\% |
| 53 | 2 | 94 | 0.021277 | 1.1910\% | 1.7979\% | 1.1 | 1.7 | 179\% | 118\% |
| 54 | 2 | 115 | 0.017391 | 1.2067\% | 1.8801\% | 1.4 | 2.2 | 144\% | 93\% |
| 55 | 1 | 142 | 0.007042 | 1.2055\% | 1.9766\% | 1.7 | 2.8 | 58\% | 36\% |
| 56 | 5 | 193 | 0.025907 | 1.2788\% | 2.0629\% | 2.5 | 4.0 | 203\% | 126\% |
| 57 | 4 | 229 | 0.017467 | 1.3557\% | 2.1504\% | 3.1 | 4.9 | 129\% | 81\% |
| 58 | 3 | 240 | 0.012500 | 1.4363\% | 2.2426\% | 3.4 | 5.4 | 87\% | 56\% |
| 59 | 7 | 272 | 0.025735 | 1.5111\% | 2.3327\% | 4.1 | 6.3 | 170\% | 110\% |
| 60 | 4 | 281 | 0.014235 | 1.5885\% | 2.4235\% | 4.5 | 6.8 | 90\% | 59\% |
| 61 | 10 | 333 | 0.030030 | 1.7007\% | 2.5175\% | 5.7 | 8.4 | 177\% | 119\% |
| 62 | 10 | 421 | 0.023753 | 1.8065\% | 2.6107\% | 7.6 | 11.0 | 131\% | 91\% |
| 63 | 9 | 472 | 0.019068 | 1.9366\% | 2.7390\% | 9.1 | 12.9 | 98\% | 70\% |
| 64 | 7 | 490 | 0.014286 | 2.0570\% | 2.8689\% | 10.1 | 14.1 | 69\% | 50\% |
| 65 | 7 | 484 | 0.014463 | 2.1885\% | 2.9977\% | 10.6 | 14.5 | 66\% | 48\% |
| 66 | 9 | 433 | 0.020785 | 2.3479\% | 3.1270\% | 10.2 | 13.5 | 89\% | 66\% |
| 67 | 9 | 423 | 0.021277 | 2.5016\% | 3.2564\% | 10.6 | 13.8 | 85\% | 65\% |
| 68 | 12 | 384 | 0.031250 | 2.6489\% | 3.4680\% | 10.2 | 13.3 | 118\% | 90\% |
| 69 | 7 | 345 | 0.020290 | 2.8297\% | 3.6800\% | 9.8 | 12.7 | 72\% | 55\% |
| 70 | 4 | 297 | 0.013468 | 3.0026\% | 3.8920\% | 8.9 | 11.6 | 45\% | 35\% |
| 71 | 5 | 232 | 0.021552 | 3.2490\% | 4.1033\% | 7.5 | 9.5 | 66\% | 53\% |
| 72 | 3 | 214 | 0.014019 | 3.5232\% | 4.3149\% | 7.5 | 9.2 | 40\% | 32\% |
| 73 | 4 | 189 | 0.021164 | 3.8247\% | 4.6675\% | 7.2 | 8.8 | 55\% | 45\% |
| 74 | 11 | 182 | 0.060440 | 4.1569\% | 5.0202\% | 7.6 | 9.1 | 145\% | 120\% |
| 75 | 8 | 156 | 0.051282 | 4.5661\% | 5.3761\% | 7.1 | 8.4 | 112\% | 95\% |
| 76 | 5 | 126 | 0.039683 | 4.9925\% | 5.7294\% | 6.3 | 7.2 | 79\% | 69\% |
| 77 | 7 | 140 | 0.050000 | 5.5053\% | 6.0828\% | 7.7 | 8.5 | 91\% | 82\% |
| 78 | 8 | 135 | 0.059259 | 6.0715\% | 6.6494\% | 8.2 | 9.0 | 98\% | 89\% |
| 79 | 10 | 144 | 0.069444 | 6.6961\% | 7.2161\% | 9.6 | 10.4 | 104\% | 96\% |
| 80 | 9 | 148 | 0.060811 | 7.3842\% | 7.7827\% | 10.9 | 11.5 | 82\% | 78\% |
| 81 | 6 | 123 | 0.048780 | 8.1856\% | 8.3493\% | 10.1 | 10.3 | 60\% | 58\% |
| 82 | 4 | 111 | 0.036036 | 8.9993\% | 8.9159\% | 10.0 | 9.9 | 40\% | 40\% |
| 83 | 14 | 108 | 0.129630 | 9.7467\% | 9.7808\% | 10.5 | 10.6 | 133\% | 133\% |
| 84 | 8 | 98 | 0.081633 | 10.5790\% | 10.6456\% | 10.4 | 10.4 | 77\% | 77\% |
| 85 | 10 | 83 | 0.120482 | 11.3324\% | 11.5105\% | 9.4 | 9.6 | 106\% | 105\% |
| 86 | 9 | 67 | 0.134328 | 12.5123\% | 12.3753\% | 8.4 | 8.3 | 107\% | 109\% |
| 87 | 9 | 50 | 0.180000 | 13.8029\% | 13.2402\% | 6.9 | 6.6 | 130\% | 136\% |
| 88 | 4 | 39 | 0.102564 | 15.1136\% | 14.5013\% | 5.9 | 5.7 | 68\% | 71\% |
| 89 | 7 | 36 | 0.194444 | 16.3127\% | 15.7625\% | 5.9 | 5.7 | 119\% | 123\% |
| 90 | 3 | 31 | 0.096774 | 17.6532\% | 17.0236\% | 5.5 | 5.3 | 55\% | 57\% |
| 91 | 4 | 23 | 0.173913 | 19.7349\% | 18.2847\% | 4.5 | 4.2 | 88\% | 95\% |
| 92 | 4 | 15 | 0.266667 | 21.9020\% | 19.5459\% | 3.3 | 2.9 | 122\% | 136\% |
| 93 | 1 | 9 | 0.111111 | 23.8022\% | 21.3144\% | 2.1 | 1.9 | 47\% | 52\% |
| 94 | 0 | 4 | 0.000000 | 25.6258\% | 23.0829\% | 1.0 | 0.9 | 0\% | 0\% |
| 95 | 2 | 3 | 0.666667 | 27.6230\% | 24.8515\% | 0.8 | 0.7 | 241\% | 268\% |
| 96 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 97 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 98 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 274 | 8,916 |  |  |  | 297.5 | 354.5 | 92\% | 77\% |
| 100 or more | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| Total | 274 | 8,916 |  |  |  | 297.5 | 354.5 | 92\% | 77\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION MORTALITY EXPERIENCE OF DISABILITY RETIREES <br> MEN AND WOMEN

| Age | TABLE 2C GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \quad(2) /(\mathbf{3}) \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | Proposed (8) / (3) | Expected | Proposed | Expected $(2) /(7)$ | Proposed $(\mathbf{2}) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 2 | 143 | 0.013986 | 0.9436\% | 0.6695\% | 1.3 | 1.0 | 148\% | 209\% |
| 45-49 | 2 | 402 | 0.004975 | 1.0478\% | 1.2137\% | 4.2 | 4.9 | 47\% | 41\% |
| 50-54 | 7 | 466 | 0.015021 | 1.1695\% | 1.7203\% | 5.4 | 8.0 | 128\% | 87\% |
| 55-59 | 20 | 1,076 | 0.018587 | 1.3793\% | 2.1784\% | 14.8 | 23.4 | 135\% | 85\% |
| 60-64 | 40 | 1,997 | 0.020030 | 1.8504\% | 2.6625\% | 37.0 | 53.2 | 108\% | 75\% |
| 65-69 | 44 | 2,069 | 0.021266 | 2.4782\% | 3.2787\% | 51.3 | 67.8 | 86\% | 65\% |
| 70-74 | 27 | 1,114 | 0.024237 | 3.4820\% | 4.3331\% | 38.8 | 48.3 | 70\% | 56\% |
| 75-79 | 38 | 701 | 0.054208 | 5.5578\% | 6.2039\% | 39.0 | 43.5 | 98\% | 87\% |
| 80-84 | 41 | 588 | 0.069728 | 8.8231\% | 8.9593\% | 51.9 | 52.7 | 79\% | 78\% |
| 85-89 | 39 | 275 | 0.141818 | 13.2573\% | 13.0165\% | 36.5 | 35.8 | 107\% | 109\% |
| 90-94 | 12 | 82 | 0.146341 | 20.0781\% | 18.6052\% | 16.5 | 15.3 | 73\% | 79\% |
| 95-99 | 2 | 3 | 0.666667 | 27.6230\% | 24.8515\% | 0.8 | 0.7 | 241\% | 268\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 274 | 8,916 |  |  |  | 297.5 | 354.5 | 92\% | 77\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN AND WOMEN

| Age | TABLE 2C |  |  | Assumed | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected (3) $\times(5)$ | Proposed (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 1 | 71 | 0.014085 | 0.9291\% | 0.4717\% | 0.7 | 0.3 | 152\% | 299\% |
| 42 | 1 | 86 | 0.011628 | 0.9538\% | 0.6092\% | 0.8 | 0.5 | 122\% | 191\% |
| 43 | 0 | 101 | 0.000000 | 0.9800\% | 0.7572\% | 1.0 | 0.8 | 0\% | 0\% |
| 44 | 1 | 123 | 0.008130 | 1.0060\% | 0.8913\% | 1.2 | 1.1 | 81\% | 91\% |
| 45 | 1 | 134 | 0.007463 | 1.0336\% | 1.0252\% | 1.4 | 1.4 | 72\% | 73\% |
| 46 | 0 | 144 | 0.000000 | 1.0621\% | 1.1606\% | 1.5 | 1.7 | 0\% | 0\% |
| 47 | 4 | 167 | 0.023952 | 1.0915\% | 1.2949\% | 1.8 | 2.2 | 219\% | 185\% |
| 48 | 0 | 203 | 0.000000 | 1.1212\% | 1.3923\% | 2.3 | 2.8 | 0\% | 0\% |
| 49 | 1 | 225 | 0.004444 | 1.1519\% | 1.4966\% | 2.6 | 3.4 | 39\% | 30\% |
| 50 | 0 | 262 | 0.000000 | 1.1833\% | 1.5927\% | 3.1 | 4.2 | 0\% | 0\% |
| 51 | 7 | 307 | 0.022801 | 1.2160\% | 1.6864\% | 3.7 | 5.2 | 188\% | 135\% |
| 52 | 1 | 344 | 0.002907 | 1.2508\% | 1.7733\% | 4.3 | 6.1 | 23\% | 16\% |
| 53 | 5 | 410 | 0.012195 | 1.2658\% | 1.8460\% | 5.2 | 7.6 | 96\% | 66\% |
| 54 | 3 | 448 | 0.006696 | 1.2811\% | 1.9202\% | 5.7 | 8.6 | 52\% | 35\% |
| 55 | 5 | 563 | 0.008881 | 1.2781\% | 2.0002\% | 7.2 | 11.3 | 69\% | 44\% |
| 56 | 8 | 722 | 0.011080 | 1.3522\% | 2.0810\% | 9.8 | 15.0 | 82\% | 53\% |
| 57 | 8 | 842 | 0.009501 | 1.4291\% | 2.1690\% | 12.0 | 18.3 | 66\% | 44\% |
| 58 | 11 | 906 | 0.012141 | 1.5096\% | 2.2676\% | 13.7 | 20.5 | 80\% | 54\% |
| 59 | 17 | 984 | 0.017276 | 1.5867\% | 2.3717\% | 15.6 | 23.3 | 109\% | 73\% |
| 60 | 9 | 1,030 | 0.008738 | 1.6667\% | 2.4820\% | 17.2 | 25.6 | 52\% | 35\% |
| 61 | 25 | 1,079 | 0.023170 | 1.7806\% | 2.5969\% | 19.2 | 28.0 | 130\% | 89\% |
| 62 | 20 | 1,091 | 0.018332 | 1.8918\% | 2.7148\% | 20.6 | 29.6 | 97\% | 68\% |
| 63 | 15 | 1,092 | 0.013736 | 2.0205\% | 2.8711\% | 22.1 | 31.4 | 68\% | 48\% |
| 64 | 21 | 1,063 | 0.019755 | 2.1470\% | 3.0269\% | 22.8 | 32.2 | 92\% | 65\% |
| 65 | 15 | 988 | 0.015182 | 2.2829\% | 3.1815\% | 22.6 | 31.4 | 67\% | 48\% |
| 66 | 23 | 888 | 0.025901 | 2.4417\% | 3.3344\% | 21.7 | 29.6 | 106\% | 78\% |
| 67 | 23 | 801 | 0.028714 | 2.6015\% | 3.4862\% | 20.8 | 27.9 | 110\% | 82\% |
| 68 | 22 | 728 | 0.030220 | 2.7623\% | 3.7242\% | 20.1 | 27.1 | 109\% | 81\% |
| 69 | 15 | 643 | 0.023328 | 2.9506\% | 3.9627\% | 19.0 | 25.5 | 79\% | 59\% |
| 70 | 12 | 576 | 0.020833 | 3.1404\% | 4.2003\% | 18.1 | 24.2 | 66\% | 50\% |
| 71 | 20 | 523 | 0.038241 | 3.4017\% | 4.4375\% | 17.8 | 23.2 | 112\% | 86\% |
| 72 | 12 | 485 | 0.024742 | $3.6891 \%$ | 4.6742\% | 17.9 | 22.7 | 67\% | 53\% |
| 73 | 19 | 468 | 0.040598 | 4.0057\% | 5.0634\% | 18.7 | 23.7 | 101\% | 80\% |
| 74 | 23 | 448 | 0.051339 | 4.3538\% | 5.4513\% | 19.5 | 24.4 | 118\% | 94\% |
| 75 | 17 | 422 | 0.040284 | 4.7634\% | 5.8386\% | 20.1 | 24.6 | 85\% | 69\% |
| 76 | 27 | 393 | 0.068702 | 5.2082\% | 6.2236\% | 20.5 | 24.5 | 132\% | 110\% |
| 77 | 24 | 387 | 0.062016 | 5.7257\% | 6.6054\% | 22.2 | 25.6 | 108\% | 94\% |
| 78 | 26 | 370 | 0.070270 | 6.2954\% | 7.2148\% | 23.3 | 26.7 | 112\% | 97\% |
| 79 | 25 | 352 | 0.071023 | 6.9221\% | 7.8215\% | 24.4 | 27.5 | 103\% | 91\% |
| 80 | 22 | 335 | 0.065672 | 7.6102\% | 8.4262\% | 25.5 | 28.2 | 86\% | 78\% |
| 81 | 17 | 290 | 0.058621 | 8.4106\% | 9.0276\% | 24.4 | 26.2 | 70\% | 65\% |
| 82 | 18 | 264 | 0.068182 | 9.2188\% | 9.6264\% | 24.3 | 25.4 | 74\% | 71\% |
| 83 | 27 | 237 | 0.113924 | 9.9729\% | 10.5376\% | 23.6 | 25.0 | 114\% | 108\% |
| 84 | 19 | 201 | 0.094527 | 10.7778\% | 11.4419\% | 21.7 | 23.0 | 88\% | 83\% |
| 85 | 19 | 172 | 0.110465 | 11.5430\% | 12.3502\% | 19.9 | 21.2 | 96\% | 89\% |
| 86 | 23 | 143 | 0.160839 | 12.7560\% | 13.2681\% | 18.2 | 19.0 | 126\% | 121\% |
| 87 | 14 | 106 | 0.132075 | 14.0544\% | 14.1888\% | 14.9 | 15.0 | 94\% | 93\% |
| 88 | 13 | 84 | 0.154762 | 15.3426\% | 15.5101\% | 12.9 | 13.0 | 101\% | 100\% |
| 89 | 13 | 66 | 0.196970 | 16.5598\% | 16.8210\% | 10.9 | 11.1 | 119\% | 117\% |
| 90 | 7 | 48 | 0.145833 | 17.8667\% | 18.1205\% | 8.6 | 8.7 | 82\% | 80\% |
| 91 | 6 | 36 | 0.166667 | 19.9737\% | 19.4074\% | 7.2 | 7.0 | 83\% | 86\% |
| 92 | 7 | 24 | 0.291667 | 22.1003\% | 20.6763\% | 5.3 | 5.0 | 132\% | 141\% |
| 93 | 2 | 15 | 0.133333 | 24.0177\% | 22.4555\% | 3.6 | 3.4 | 56\% | 59\% |
| 94 | 2 | 7 | 0.285714 | 25.8578\% | 24.2273\% | 1.8 | 1.7 | 110\% | 118\% |
| 95 | 3 | 4 | 0.750000 | 27.7894\% | 25.9989\% | 1.1 | 1.0 | 270\% | 288\% |
| 96 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 97 | 1 | 1 | 1.000000 | 30.5355\% | 29.5550\% | 0.3 | 0.3 | 327\% | 338\% |
| 98 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 680 | 22,902 |  |  |  | 726.4 | 903.8 | 94\% | 75\% |
| 100 or more | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| Total | 680 | 22,902 |  |  |  | 726.4 | 903.8 | 94\% | 75\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION MORTALITY EXPERIENCE OF DISABILITY RETIREES <br> MEN AND WOMEN

| Age | TABLE 2C GROUPED |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013Expected Deaths |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Deaths | Total Exposed | Actual Rate | Expected <br> (7) / (3) | Proposed (8) / (3) | Expected | Proposed | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 3 | 381 | 0.007874 | 0.9730\% | 0.7139\% | 3.7 | 2.7 | 81\% | 110\% |
| 45-49 | 6 | 873 | 0.006873 | 1.1002\% | 1.3060\% | 9.6 | 11.4 | 62\% | 53\% |
| 50-54 | 16 | 1,771 | 0.009034 | 1.2459\% | 1.7855\% | 22.1 | 31.6 | 73\% | 51\% |
| 55-59 | 49 | 4,017 | 0.012198 | 1.4509\% | 2.2014\% | 58.3 | 88.4 | 84\% | 55\% |
| 60-64 | 90 | 5,355 | 0.016807 | 1.9030\% | 2.7401\% | 101.9 | 146.7 | 88\% | 61\% |
| 65-69 | 98 | 4,048 | 0.024209 | 2.5731\% | 3.4970\% | 104.2 | 141.6 | 94\% | 69\% |
| 70-74 | 86 | 2,500 | 0.034400 | 3.6810\% | 4.7276\% | 92.0 | 118.2 | 93\% | 73\% |
| 75-79 | 119 | 1,924 | 0.061850 | 5.7374\% | 6.6989\% | 110.4 | 128.9 | 108\% | 92\% |
| 80-84 | 103 | 1,327 | 0.077619 | 9.0069\% | 9.6303\% | 119.5 | 127.8 | 86\% | 81\% |
| 85-89 | 82 | 571 | 0.143608 | 13.4518\% | 13.9030\% | 76.8 | 79.4 | 107\% | 103\% |
| 90-94 | 24 | 130 | 0.184615 | 20.3718\% | 19.7777\% | 26.5 | 25.7 | 91\% | 93\% |
| 95-99 | 4 | 5 | 0.800000 | 28.3386\% | 26.7101\% | 1.4 | 1.3 | 282\% | 300\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 680 | 22,902 |  |  |  | 726.4 | 903.8 | 94\% | 75\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN AND WOMEN

| Plan <br> Year <br> Ending <br> June 30, | TABLE 2D <br> Life Years Exposed | Actual <br> Deaths | Expected Deaths | 10-YEAR PERIOD ENDING 6/30/2013$\qquad$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / Expected | Actual $(3) /(2)$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 2,403 | 75 | 54.2 | 138\% | 3.1211\% | 2.2545\% |
| 2005 | 2,381 | 75 | 55.0 | 136\% | 3.1499\% | 2.3090\% |
| 2006 | 2,344 | 63 | 56.2 | 112\% | 2.6877\% | 2.3997\% |
| 2007 | 2,352 | 74 | 58.0 | 128\% | 3.1463\% | 2.4647\% |
| 2008 | 2,326 | 62 | 58.5 | 106\% | 2.6655\% | 2.5158\% |
| 2009 | 2,320 | 57 | 60.4 | 94\% | 2.4569\% | 2.6031\% |
| 2010 | 2,305 | 68 | 62.2 | 109\% | 2.9501\% | 2.6988\% |
| 2011 | 2,254 | 79 | 63.1 | 125\% | 3.5049\% | 2.8002\% |
| 2012 | 2,231 | 55 | 64.4 | 85\% | 2.4653\% | 2.8856\% |
| 2013 | 2,219 | 73 | 66.3 | 110\% | 3.2898\% | 2.9857\% |
| Total | 23,135 | 681 | 598.2 | 114\% | 2.9436\% | 2.5858\% |

[^6]
## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION <br> WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS <br> MEN AND WOMEN



## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION <br> WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS <br> MEN AND WOMEN

| Service | TABLE 3C |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Withdrawals | Total <br> Exposed | Actual Rate$(2) /(3)$ | Assumed Probability |  | Expected Withdrawals |  | Actual/Expected |  |
|  |  |  |  | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ (3) \times(6) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | $\begin{aligned} & \text { Proposed } \\ & (2) /(8) \\ & \hline \end{aligned}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 0 | 55 | 840 | 0.0655 | 4.00\% | 4.00\% | 33.6 | 33.6 | 164\% | 164\% |
| 1 | 81 | 3,073 | 0.0264 | 2.00\% | 2.00\% | 61.5 | 61.5 | 132\% | 132\% |
| 2 | 20 | 2,761 | 0.0072 | 1.00\% | 1.00\% | 27.6 | 27.6 | 72\% | 72\% |
| 3 | 37 | 3,767 | 0.0098 | 1.00\% | 1.00\% | 37.7 | 37.7 | 98\% | 98\% |
| 4 | 30 | 3,774 | 0.0079 | 1.00\% | 1.00\% | 37.7 | 37.7 | 79\% | 79\% |
| 5 | 24 | 3,394 | 0.0071 | 1.00\% | 1.00\% | 33.9 | 33.9 | 71\% | 71\% |
| 6 | 30 | 3,004 | 0.0100 | 0.90\% | 0.90\% | 27.0 | 27.0 | 111\% | 111\% |
| 7 | 24 | 2,269 | 0.0106 | 0.80\% | 0.80\% | 18.2 | 18.2 | 132\% | 132\% |
| 8 | 19 | 2,472 | 0.0077 | 0.70\% | 0.70\% | 17.3 | 17.3 | 110\% | 110\% |
| 9 | 17 | 2,407 | 0.0071 | 0.60\% | 0.60\% | 14.4 | 14.4 | 118\% | 118\% |
| 10 | 12 | 2,550 | 0.0047 | 0.50\% | 0.50\% | 12.8 | 12.8 | 94\% | 94\% |
| 11 | 15 | 1,786 | 0.0084 | 0.50\% | 0.50\% | 8.9 | 8.9 | 168\% | 168\% |
| 12 | 8 | 1,350 | 0.0059 | 0.50\% | 0.50\% | 6.8 | 6.8 | 119\% | 119\% |
| 13 | 9 | 1,812 | 0.0050 | 0.50\% | 0.50\% | 9.1 | 9.1 | 99\% | 99\% |
| 14 | 9 | 2,105 | 0.0043 | 0.50\% | 0.50\% | 10.5 | 10.5 | 86\% | 86\% |
| 15 | 20 | 2,186 | 0.0091 | 0.50\% | 0.50\% | 10.9 | 10.9 | 183\% | 183\% |
| 16 | 19 | 2,384 | 0.0080 | 0.50\% | 0.50\% | 11.9 | 11.9 | 159\% | 159\% |
| 17 | 18 | 2,522 | 0.0071 | 0.50\% | 0.50\% | 12.6 | 12.6 | 143\% | 143\% |
| 18 | 8 | 2,754 | 0.0029 | 0.50\% | 0.50\% | 13.8 | 13.8 | 58\% | 58\% |
| 19 | 1 | 73 | 0.0137 | 0.50\% | 0.50\% | 0.4 | 13.4 | 274\% | 274\% |
| 20 | 0 | 55 | 0.0000 | 0.50\% | 0.50\% | 0.3 | 0.3 | 0\% | 0\% |
| 21 | 1 | 42 | 0.0238 | 0.50\% | 0.50\% | 0.2 | 0.2 | 476\% | 476\% |
| 22 | 0 | 37 | 0.0000 | 0.50\% | 0.50\% | 0.2 | 0.2 | 0\% | 0\% |
| 23 | 0 | 34 | 0.0000 | 0.50\% | 0.50\% | 0.2 | 0.2 | 0\% | 0\% |
| 24 | 1 | 24 | 0.0417 | 0.50\% | 0.50\% | 0.1 | 0.1 | 833\% | 833\% |
| 25 | 0 | 16 | 0.0000 | 0.50\% | 0.50\% | 0.1 | 0.1 | 0\% | 0\% |
| 26 | 0 | 13 | 0.0000 | 0.50\% | 0.50\% | 0.1 | 0.1 | 0\% | 0\% |
| 27 | 0 | 9 | 0.0000 | 0.50\% | 0.50\% | 0.0 | 0.0 | 0\% | 0\% |
| 28 | 0 | 6 | 0.0000 | 0.50\% | 0.50\% | 0.0 | 0.0 | 0\% | 0\% |
| 29 | 1 | 2 | 0.5000 | 0.50\% | 0.50\% | 0.0 | 0.0 | 10000\% | 10000\% |
| 30 | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| Total | 459 | 47,521 | 0.0097 |  |  | 407.8 | 407.8 | 113\% | 113\% |
| 31 or more | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| Total | 459 | 47,521 | 0.0097 |  |  | 407.8 | 407.8 | 113\% | 113\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION

## WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS

MEN AND WOMEN

| Plan Year | TABLE 3D |  |  | 10-YEAR PER | Withdrawal Rate | $\begin{aligned} & 013 \\ & 1 \text { Rate } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending June 30, | Life Years Exposed | Actual <br> Withdrawals | Expected Withdrawals | Actual / Expected | $\begin{aligned} & \text { Actual } \\ & (3) /(2) \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 6,134 | 41 | 57.5 | 71\% | 0.67\% | 0.94\% |
| 2005 | 5,750 | 75 | 64.4 | 116\% | 1.30\% | 1.12\% |
| 2006 | 6,061 | 85 | 70.8 | 120\% | 1.40\% | 1.17\% |
| 2007 | 6,139 | 77 | 69.7 | 111\% | 1.25\% | 1.13\% |
| 2008 | 6,323 | 80 | 68.8 | 116\% | 1.27\% | 1.09\% |
| 2009 | 6,043 | 34 | 61.9 | 55\% | 0.56\% | 1.02\% |
| 2010 | 5,583 | 35 | 53.8 | 65\% | 0.63\% | 0.96\% |
| 2011 | 5,488 | 32 | 48.7 | 66\% | 0.58\% | 0.89\% |
| 2012 | 5,466 | 10 | 48.3 | 21\% | 0.18\% | 0.88\% |
| 2013 | 5,311 | 57 | 50.5 | 113\% | 1.07\% | 0.95\% |
| Total | 58,298 | 526 | 594.2 | 89\% | 0.90\% | 1.02\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY TOTAL - MEN AND WOMEN

| Age | TABLE 4A |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Retirements | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2)/(3) } \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 1 | 16 | 0.0625 | 40.00\% | 25.00\% | 6.4 | 4.0 | 16\% | 25\% |
| 41 | 2 | 30 | 0.0667 | 40.00\% | 25.67\% | 12.0 | 7.7 | 17\% | 26\% |
| 42 | 1 | 40 | 0.0250 | 40.00\% | 25.75\% | 16.0 | 10.3 | 6\% | 10\% |
| 43 | 8 | 54 | 0.1481 | 40.00\% | 27.78\% | 21.6 | 15.0 | 37\% | 53\% |
| 44 | 9 | 76 | 0.1184 | 40.00\% | 28.42\% | 30.4 | 21.6 | 30\% | 42\% |
| 45 | 23 | 104 | 0.2212 | 40.00\% | 29.23\% | 41.6 | 30.4 | 55\% | 76\% |
| 46 | 20 | 88 | 0.2273 | 40.95\% | 30.73\% | 36.0 | 27.0 | 55\% | 74\% |
| 47 | 21 | 91 | 0.2308 | 41.89\% | 31.62\% | 38.1 | 28.8 | 55\% | 73\% |
| 48 | 15 | 70 | 0.2143 | 42.74\% | 32.31\% | 29.9 | 22.6 | 50\% | 66\% |
| 49 | 8 | 69 | 0.1159 | 43.94\% | 33.87\% | 30.3 | 23.4 | 26\% | 34\% |
| 50 | 19 | 85 | 0.2235 | 45.65\% | 36.29\% | 38.8 | 30.9 | 49\% | 62\% |
| 51 | 18 | 59 | 0.3051 | 45.90\% | 35.81\% | 27.1 | 21.1 | 66\% | 85\% |
| 52 | 13 | 61 | 0.2131 | 45.97\% | 35.23\% | 28.0 | 21.5 | 46\% | 60\% |
| 53 | 11 | 57 | 0.1930 | 50.39\% | 41.88\% | 28.7 | 23.9 | 38\% | 46\% |
| 54 | 9 | 36 | 0.2500 | 49.50\% | 39.78\% | 17.8 | 14.3 | 51\% | 63\% |
| 55 | 8 | 32 | 0.2500 | 53.75\% | 45.63\% | 17.2 | 14.6 | 47\% | 55\% |
| 56 | 4 | 28 | 0.1429 | 49.29\% | 38.93\% | 13.8 | 10.9 | 29\% | 37\% |
| 57 | 12 | 41 | 0.2927 | 51.22\% | 41.83\% | 21.0 | 17.2 | 57\% | 70\% |
| 58 | 6 | 20 | 0.3000 | 49.00\% | 38.50\% | 9.8 | 7.7 | 61\% | 78\% |
| 59 | 4 | 22 | 0.1818 | 50.91\% | 41.36\% | 11.2 | 9.1 | 36\% | 44\% |
| 60 | 8 | 19 | 0.4211 | 53.68\% | 45.53\% | 10.2 | 8.7 | 78\% | 92\% |
| 61 | 3 | 9 | 0.3333 | 53.33\% | 45.00\% | 4.8 | 4.1 | 63\% | 74\% |
| 62 | 11 | 28 | 0.3929 | 60.00\% | 33.57\% | 16.8 | 9.4 | 65\% | 117\% |
| 63 | 7 | 15 | 0.4667 | 40.00\% | 27.00\% | 6.0 | 4.1 | 117\% | 173\% |
| 64 | 6 | 9 | 0.6667 | 40.00\% | 28.33\% | 3.6 | 2.6 | 167\% | 235\% |
| 65 | 4 | 22 | 0.1818 | 60.00\% | 30.45\% | 13.2 | 6.7 | 30\% | 60\% |
| 66 | 8 | 19 | 0.4211 | 40.00\% | 26.58\% | 7.6 | 5.1 | 105\% | 158\% |
| 67 | 3 | 11 | 0.2727 | 40.00\% | 27.73\% | 4.4 | 3.1 | 68\% | 98\% |
| 68 | 3 | 9 | 0.3333 | 40.00\% | 28.33\% | 3.6 | 2.6 | 83\% | 118\% |
| 69 | 2 | 6 | 0.3333 | 40.00\% | 25.00\% | 2.4 | 1.5 | 83\% | 133\% |
| 70 | 0 | 3 | 0.0000 | 100.00\% | 100.00\% | 3.0 | 3.0 | 0\% | 0\% |
| Subtotal | 267 | 1,229 |  |  |  | 551.5 | 412.5 | 48\% | 65\% |
| Other | 0 | 9 | 0.0000 | 100.00\% | 100.00\% | 9.0 | 9.0 | 0\% | 0\% |
| Total | 267 | 1,238 |  |  |  | 560.5 | 421.5 | 48\% | 63\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 4B |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | Proposed $(3) \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 1 | 2 | 0.5000 | 40.00\% | 35.00\% | 0.8 | 0.7 | 125\% | 143\% |
| 42 | 0 | 3 | 0.0000 | 40.00\% | 35.00\% | 1.2 | 1.1 | 0\% | 0\% |
| 43 | 5 | 15 | 0.3333 | 40.00\% | 35.00\% | 6.0 | 5.3 | 83\% | 95\% |
| 44 | 8 | 26 | 0.3077 | 40.00\% | 35.00\% | 10.4 | 9.1 | 77\% | 88\% |
| 45 | 17 | 44 | 0.3864 | 40.00\% | 35.00\% | 17.6 | 15.4 | 97\% | 110\% |
| 46 | 17 | 42 | 0.4048 | 42.00\% | 37.00\% | 17.6 | 15.5 | 96\% | 109\% |
| 47 | 17 | 43 | 0.3953 | 44.00\% | 39.00\% | 18.9 | 16.8 | 90\% | 101\% |
| 48 | 12 | 32 | 0.3750 | 46.00\% | 41.00\% | 14.7 | 13.1 | 82\% | 91\% |
| 49 | 7 | 34 | 0.2059 | 48.00\% | 43.00\% | 16.3 | 14.6 | 43\% | 48\% |
| 50 | 16 | 48 | 0.3333 | 50.00\% | 45.00\% | 24.0 | 21.6 | 67\% | 74\% |
| 51 | 15 | 29 | 0.5172 | 52.00\% | 47.00\% | 15.1 | 13.6 | 99\% | 110\% |
| 52 | 7 | 26 | 0.2692 | 54.00\% | 49.00\% | 14.0 | 12.7 | 50\% | 55\% |
| 53 | 10 | 37 | 0.2703 | 56.00\% | 51.00\% | 20.7 | 18.9 | 48\% | 53\% |
| 54 | 8 | 19 | 0.4211 | 58.00\% | 53.00\% | 11.0 | 10.1 | 73\% | 79\% |
| 55 | 8 | 22 | 0.3636 | 60.00\% | 55.00\% | 13.2 | 12.1 | 61\% | 66\% |
| 56 | 3 | 13 | 0.2308 | 60.00\% | 55.00\% | 7.8 | 7.2 | 38\% | 42\% |
| 57 | 8 | 23 | 0.3478 | 60.00\% | 55.00\% | 13.8 | 12.7 | 58\% | 63\% |
| 58 | 4 | 9 | 0.4444 | 60.00\% | 55.00\% | 5.4 | 5.0 | 74\% | 81\% |
| 59 | 4 | 12 | 0.3333 | 60.00\% | 55.00\% | 7.2 | 6.6 | 56\% | 61\% |
| 60 | 7 | 13 | 0.5385 | 60.00\% | 55.00\% | 7.8 | 7.2 | 90\% | 98\% |
| 61 | 3 | 6 | 0.5000 | 60.00\% | 55.00\% | 3.6 | 3.3 | 83\% | 91\% |
| 62 | 5 | 8 | 0.6250 | 60.00\% | 55.00\% | 4.8 | 4.4 | 104\% | 114\% |
| 63 | 1 | 3 | 0.3333 | 40.00\% | 35.00\% | 1.2 | 1.1 | 83\% | 95\% |
| 64 | 1 | 3 | 0.3333 | 40.00\% | 35.00\% | 1.2 | 1.1 | 83\% | 95\% |
| 65 | 2 | 4 | 0.5000 | 60.00\% | 55.00\% | 2.4 | 2.2 | 83\% | 91\% |
| 66 | 2 | 3 | 0.6667 | 40.00\% | 35.00\% | 1.2 | 1.1 | 167\% | 190\% |
| 67 | 2 | 3 | 0.6667 | 40.00\% | 35.00\% | 1.2 | 1.1 | 167\% | 190\% |
| 68 | 3 | 3 | 1.0000 | 40.00\% | 35.00\% | 1.2 | 1.1 | 250\% | 286\% |
| 69 | 0 | 0 | N/A | 40.00\% | 35.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 1 | 0.0000 | 100.00\% | 100.00\% | 1.0 | 1.0 | 0\% | 0\% |
| Subtotal | 193 | 526 |  |  |  | 261.5 | 235.2 | 74\% | 82\% |
| Other | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 193 | 526 |  |  |  | 261.5 | 235.2 | 74\% | 82\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY

MEN AND WOMEN - MANDATED RETIREMENT BENEFIT

| Age | TABLE 4C |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements <br> Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Retirements | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 1 | 16 | 0.0625 | 40.00\% | 25.00\% | 6.4 | 4.0 | 16\% | 25\% |
| 41 | 1 | 28 | 0.0357 | 40.00\% | 25.00\% | 11.2 | 7.0 | 9\% | 14\% |
| 42 | 1 | 37 | 0.0270 | 40.00\% | 25.00\% | 14.8 | 9.3 | 7\% | 11\% |
| 43 | 3 | 39 | 0.0769 | 40.00\% | 25.00\% | 15.6 | 9.8 | 19\% | 31\% |
| 44 | 1 | 50 | 0.0200 | 40.00\% | 25.00\% | 20.0 | 12.5 | 5\% | 8\% |
| 45 | 6 | 60 | 0.1000 | 40.00\% | 25.00\% | 24.0 | 15.0 | 25\% | 40\% |
| 46 | 3 | 46 | 0.0652 | 40.00\% | 25.00\% | 18.4 | 11.5 | 16\% | 26\% |
| 47 | 4 | 48 | 0.0833 | 40.00\% | 25.00\% | 19.2 | 12.0 | 21\% | 33\% |
| 48 | 3 | 38 | 0.0789 | 40.00\% | 25.00\% | 15.2 | 9.5 | 20\% | 32\% |
| 49 | 1 | 35 | 0.0286 | 40.00\% | 25.00\% | 14.0 | 8.8 | 7\% | 11\% |
| 50 | 3 | 37 | 0.0811 | 40.00\% | 25.00\% | 14.8 | 9.3 | 20\% | 32\% |
| 51 | 3 | 30 | 0.1000 | 40.00\% | 25.00\% | 12.0 | 7.5 | 25\% | 40\% |
| 52 | 6 | 35 | 0.1714 | 40.00\% | 25.00\% | 14.0 | 8.8 | 43\% | 69\% |
| 53 | 1 | 20 | 0.0500 | 40.00\% | 25.00\% | 8.0 | 5.0 | 13\% | 20\% |
| 54 | 1 | 17 | 0.0588 | 40.00\% | 25.00\% | 6.8 | 4.3 | 15\% | 24\% |
| 55 | 0 | 10 | 0.0000 | 40.00\% | 25.00\% | 4.0 | 2.5 | 0\% | 0\% |
| 56 | 1 | 15 | 0.0667 | 40.00\% | 25.00\% | 6.0 | 3.8 | 17\% | 27\% |
| 57 | 4 | 18 | 0.2222 | 40.00\% | 25.00\% | 7.2 | 4.5 | 56\% | 89\% |
| 58 | 2 | 11 | 0.1818 | 40.00\% | 25.00\% | 4.4 | 2.8 | 45\% | 73\% |
| 59 | 0 | 10 | 0.0000 | 40.00\% | 25.00\% | 4.0 | 2.5 | 0\% | 0\% |
| 60 | 1 | 6 | 0.1667 | 40.00\% | 25.00\% | 2.4 | 1.5 | 42\% | 67\% |
| 61 | 0 | 3 | 0.0000 | 40.00\% | 25.00\% | 1.2 | 0.8 | 0\% | 0\% |
| 62 | 6 | 20 | 0.3000 | 60.00\% | 25.00\% | 12.0 | 5.0 | 50\% | 120\% |
| 63 | 6 | 12 | 0.5000 | 40.00\% | 25.00\% | 4.8 | 3.0 | 125\% | 200\% |
| 64 | 5 | 6 | 0.8333 | 40.00\% | 25.00\% | 2.4 | 1.5 | 208\% | 333\% |
| 65 | 2 | 18 | 0.1111 | 60.00\% | 25.00\% | 10.8 | 4.5 | 19\% | 44\% |
| 66 | 6 | 16 | 0.3750 | 40.00\% | 25.00\% | 6.4 | 4.0 | 94\% | 150\% |
| 67 | 1 | 8 | 0.1250 | 40.00\% | 25.00\% | 3.2 | 2.0 | 31\% | 50\% |
| 68 | 0 | 6 | 0.0000 | 40.00\% | 25.00\% | 2.4 | 1.5 | 0\% | 0\% |
| 69 | 2 | 6 | 0.3333 | 40.00\% | 25.00\% | 2.4 | 1.5 | 83\% | 133\% |
| 70 | 0 | 2 | 0.0000 | 100.00\% | 100.00\% | 2.0 | 2.0 | 0\% | 0\% |
| Subtotal | 74 | 703 |  |  |  | 290.0 | 177.3 | 26\% | 42\% |
| Other | 0 | 9 | 0.0000 | 100.00\% | 100.00\% | 9.0 | 9.0 | 0\% | 0\% |
| Total | 74 | 712 |  |  |  | 299.0 | 186.3 | 25\% | 40\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY TOTAL - MEN AND WOMEN

|  | TABLE 4A |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 3 | 43 | 0.0698 | 40.00\% | 30.58\% | 17.2 | 13.2 | 17\% | 23\% |
| 41 | 7 | 82 | 0.0854 | 40.00\% | 30.24\% | 32.8 | 24.8 | 21\% | 28\% |
| 42 | 10 | 102 | 0.0980 | 40.00\% | 30.59\% | 40.8 | 31.2 | 25\% | 32\% |
| 43 | 15 | 127 | 0.1181 | 40.00\% | 31.14\% | 50.8 | 39.6 | 30\% | 38\% |
| 44 | 16 | 171 | 0.0936 | 40.00\% | 31.73\% | 68.4 | 54.3 | 23\% | 29\% |
| 45 | 37 | 219 | 0.1689 | 40.00\% | 32.12\% | 87.6 | 70.4 | 42\% | 53\% |
| 46 | 40 | 208 | 0.1923 | 41.51\% | 34.06\% | 86.3 | 70.8 | 46\% | 56\% |
| 47 | 42 | 214 | 0.1963 | 42.99\% | 35.47\% | 92.0 | 75.9 | 46\% | 55\% |
| 48 | 46 | 244 | 0.1885 | 44.89\% | 38.05\% | 109.5 | 92.8 | 42\% | 50\% |
| 49 | 67 | 281 | 0.2384 | 46.66\% | 39.99\% | 131.1 | 112.4 | 51\% | 60\% |
| 50 | 86 | 314 | 0.2739 | 48.34\% | 41.69\% | 151.8 | 130.9 | 57\% | 66\% |
| 51 | 60 | 276 | 0.2174 | 50.22\% | 43.73\% | 138.6 | 120.7 | 43\% | 50\% |
| 52 | 71 | 235 | 0.3021 | 51.08\% | 44.00\% | 120.0 | 103.4 | 59\% | 69\% |
| 53 | 59 | 230 | 0.2565 | 53.57\% | 47.04\% | 123.2 | 108.2 | 48\% | 55\% |
| 54 | 45 | 159 | 0.2830 | 54.26\% | 47.19\% | 86.3 | 75.0 | 52\% | 60\% |
| 55 | 47 | 151 | 0.3113 | 57.22\% | 50.83\% | 86.4 | 76.8 | 54\% | 61\% |
| 56 | 36 | 123 | 0.2927 | 54.47\% | 46.71\% | 67.0 | 57.5 | 54\% | 63\% |
| 57 | 47 | 132 | 0.3561 | 55.61\% | 48.41\% | 73.4 | 63.9 | 64\% | 74\% |
| 58 | 28 | 89 | 0.3146 | 55.96\% | 48.93\% | 49.8 | 43.6 | 56\% | 64\% |
| 59 | 25 | 78 | 0.3205 | 56.15\% | 49.23\% | 43.8 | 38.4 | 57\% | 65\% |
| 60 | 21 | 45 | 0.4667 | 56.44\% | 49.67\% | 25.4 | 22.4 | 83\% | 94\% |
| 61 | 16 | 34 | 0.4706 | 55.88\% | 48.82\% | 19.0 | 16.6 | 84\% | 96\% |
| 62 | 31 | 70 | 0.4429 | 60.00\% | 39.14\% | 42.0 | 27.4 | 74\% | 113\% |
| 63 | 17 | 33 | 0.5152 | 40.00\% | 30.76\% | 13.2 | 10.2 | 129\% | 167\% |
| 64 | 11 | 20 | 0.5500 | 40.00\% | 31.00\% | 8.0 | 6.2 | 138\% | 177\% |
| 65 | 6 | 55 | 0.1091 | 60.00\% | 39.18\% | 33.0 | 21.6 | 18\% | 28\% |
| 66 | 11 | 39 | 0.2821 | 40.00\% | 29.10\% | 15.6 | 11.4 | 71\% | 97\% |
| 67 | 4 | 25 | 0.1600 | 40.00\% | 29.00\% | 10.0 | 7.3 | 40\% | 55\% |
| 68 | 5 | 21 | 0.2381 | 40.00\% | 28.81\% | 8.4 | 6.1 | 60\% | 83\% |
| 69 | 3 | 13 | 0.2308 | 40.00\% | 27.31\% | 5.2 | 3.6 | 58\% | 85\% |
| 70 | 1 | 7 | 0.1429 | 100.00\% | 100.00\% | 7.0 | 7.0 | 14\% | 14\% |
| Subtotal | 913 | 3,840 |  |  |  | 1,843.7 | 1,543.0 | 50\% | 59\% |
| Other | 2 | 25 | 0.0800 | 100.00\% | 100.00\% | 25.0 | 25.0 | 8\% | 8\% |
| Total | 915 | 3,865 |  |  |  | 1,868.7 | 1,568.0 | 49\% | 58\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 4B |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \begin{array}{l} \text { (2) } /(3) \\ \hline \end{array} \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | $\begin{aligned} & \text { Proposed } \\ & (2) /(8) \\ & \hline \end{aligned}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 2 | 24 | 0.0833 | 40.00\% | 35.00\% | 9.6 | 8.4 | 21\% | 24\% |
| 41 | 6 | 43 | 0.1395 | 40.00\% | 35.00\% | 17.2 | 15.1 | 35\% | 40\% |
| 42 | 9 | 57 | 0.1579 | 40.00\% | 35.00\% | 22.8 | 20.0 | 39\% | 45\% |
| 43 | 12 | 78 | 0.1538 | 40.00\% | 35.00\% | 31.2 | 27.3 | 38\% | 44\% |
| 44 | 15 | 115 | 0.1304 | 40.00\% | 35.00\% | 46.0 | 40.3 | 33\% | 37\% |
| 45 | 31 | 156 | 0.1987 | 40.00\% | 35.00\% | 62.4 | 54.6 | 50\% | 57\% |
| 46 | 35 | 157 | 0.2229 | 42.00\% | 37.00\% | 65.9 | 58.1 | 53\% | 60\% |
| 47 | 36 | 160 | 0.2250 | 44.00\% | 39.00\% | 70.4 | 62.4 | 51\% | 58\% |
| 48 | 42 | 199 | 0.2111 | 46.00\% | 41.00\% | 91.5 | 81.6 | 46\% | 51\% |
| 49 | 55 | 234 | 0.2350 | 48.00\% | 43.00\% | 112.3 | 100.6 | 49\% | 55\% |
| 50 | 71 | 262 | 0.2710 | 50.00\% | 45.00\% | 131.0 | 117.9 | 54\% | 60\% |
| 51 | 51 | 235 | 0.2170 | 52.00\% | 47.00\% | 122.2 | 110.5 | 42\% | 46\% |
| 52 | 53 | 186 | 0.2849 | 54.00\% | 49.00\% | 100.4 | 91.1 | 53\% | 58\% |
| 53 | 46 | 195 | 0.2359 | 56.00\% | 51.00\% | 109.2 | 99.5 | 42\% | 46\% |
| 54 | 30 | 126 | 0.2381 | 58.00\% | 53.00\% | 73.1 | 66.8 | 41\% | 45\% |
| 55 | 40 | 130 | 0.3077 | 60.00\% | 55.00\% | 78.0 | 71.5 | 51\% | 56\% |
| 56 | 22 | 89 | 0.2472 | 60.00\% | 55.00\% | 53.4 | 49.0 | 41\% | 45\% |
| 57 | 33 | 103 | 0.3204 | 60.00\% | 55.00\% | 61.8 | 56.7 | 53\% | 58\% |
| 58 | 21 | 71 | 0.2958 | 60.00\% | 55.00\% | 42.6 | 39.1 | 49\% | 54\% |
| 59 | 20 | 63 | 0.3175 | 60.00\% | 55.00\% | 37.8 | 34.7 | 53\% | 58\% |
| 60 | 18 | 37 | 0.4865 | 60.00\% | 55.00\% | 22.2 | 20.4 | 81\% | 88\% |
| 61 | 13 | 27 | 0.4815 | 60.00\% | 55.00\% | 16.2 | 14.9 | 80\% | 88\% |
| 62 | 16 | 33 | 0.4848 | 60.00\% | 55.00\% | 19.8 | 18.2 | 81\% | 88\% |
| 63 | 9 | 19 | 0.4737 | 40.00\% | 35.00\% | 7.6 | 6.7 | 118\% | 135\% |
| 64 | 4 | 12 | 0.3333 | 40.00\% | 35.00\% | 4.8 | 4.2 | 83\% | 95\% |
| 65 | 4 | 26 | 0.1538 | 60.00\% | 55.00\% | 15.6 | 14.3 | 26\% | 28\% |
| 66 | 4 | 16 | 0.2500 | 40.00\% | 35.00\% | 6.4 | 5.6 | 63\% | 71\% |
| 67 | 3 | 10 | 0.3000 | 40.00\% | 35.00\% | 4.0 | 3.5 | 75\% | 86\% |
| 68 | 4 | 8 | 0.5000 | 40.00\% | 35.00\% | 3.2 | 2.8 | 125\% | 143\% |
| 69 | 0 | 3 | 0.0000 | 40.00\% | 35.00\% | 1.2 | 1.1 | 0\% | 0\% |
| 70 | 0 | 1 | 0.0000 | 100.00\% | 100.00\% | 1.0 | 1.0 | 0\% | 0\% |
| Subtotal | 705 | 2,875 |  |  |  | 1,440.9 | 1,297.2 | 49\% | 54\% |
| Other | 1 | 10 | 0.1000 | 100.00\% | 100.00\% | 10.0 | 10.0 | 10\% | 10\% |
| Total | 706 | 2,885 |  |  |  | 1,450.9 | 1,307.2 | 49\% | 54\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY

MEN AND WOMEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 4C |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013Expected Retirements Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 1 | 19 | 0.0526 | 40.00\% | 25.00\% | 7.6 | 4.8 | 13\% | 21\% |
| 41 | 1 | 39 | 0.0256 | 40.00\% | 25.00\% | 15.6 | 9.8 | 6\% | 10\% |
| 42 | 1 | 45 | 0.0222 | 40.00\% | 25.00\% | 18.0 | 11.3 | 6\% | 9\% |
| 43 | 3 | 49 | 0.0612 | 40.00\% | 25.00\% | 19.6 | 12.3 | 15\% | 24\% |
| 44 | 1 | 56 | 0.0179 | 40.00\% | 25.00\% | 22.4 | 14.0 | 4\% | 7\% |
| 45 | 6 | 63 | 0.0952 | 40.00\% | 25.00\% | 25.2 | 15.8 | 24\% | 38\% |
| 46 | 5 | 51 | 0.0980 | 40.00\% | 25.00\% | 20.4 | 12.8 | 25\% | 39\% |
| 47 | 6 | 54 | 0.1111 | 40.00\% | 25.00\% | 21.6 | 13.5 | 28\% | 44\% |
| 48 | 4 | 45 | 0.0889 | 40.00\% | 25.00\% | 18.0 | 11.3 | 22\% | 36\% |
| 49 | 12 | 47 | 0.2553 | 40.00\% | 25.00\% | 18.8 | 11.8 | 64\% | 102\% |
| 50 | 15 | 52 | 0.2885 | 40.00\% | 25.00\% | 20.8 | 13.0 | 72\% | 115\% |
| 51 | 9 | 41 | 0.2195 | 40.00\% | 25.00\% | 16.4 | 10.3 | 55\% | 88\% |
| 52 | 18 | 49 | 0.3673 | 40.00\% | 25.00\% | 19.6 | 12.3 | 92\% | 147\% |
| 53 | 13 | 35 | 0.3714 | 40.00\% | 25.00\% | 14.0 | 8.8 | 93\% | 149\% |
| 54 | 15 | 33 | 0.4545 | 40.00\% | 25.00\% | 13.2 | 8.3 | 114\% | 182\% |
| 55 | 7 | 21 | 0.3333 | 40.00\% | 25.00\% | 8.4 | 5.3 | 83\% | 133\% |
| 56 | 14 | 34 | 0.4118 | 40.00\% | 25.00\% | 13.6 | 8.5 | 103\% | 165\% |
| 57 | 14 | 29 | 0.4828 | 40.00\% | 25.00\% | 11.6 | 7.3 | 121\% | 193\% |
| 58 | 7 | 18 | 0.3889 | 40.00\% | 25.00\% | 7.2 | 4.5 | 97\% | 156\% |
| 59 | 5 | 15 | 0.3333 | 40.00\% | 25.00\% | 6.0 | 3.8 | 83\% | 133\% |
| 60 | 3 | 8 | 0.3750 | 40.00\% | 25.00\% | 3.2 | 2.0 | 94\% | 150\% |
| 61 | 3 | 7 | 0.4286 | 40.00\% | 25.00\% | 2.8 | 1.8 | 107\% | 171\% |
| 62 | 15 | 37 | 0.4054 | 60.00\% | 25.00\% | 22.2 | 9.3 | 68\% | 162\% |
| 63 | 8 | 14 | 0.5714 | 40.00\% | 25.00\% | 5.6 | 3.5 | 143\% | 229\% |
| 64 | 7 | 8 | 0.8750 | 40.00\% | 25.00\% | 3.2 | 2.0 | 219\% | 350\% |
| 65 | 2 | 29 | 0.0690 | 60.00\% | 25.00\% | 17.4 | 7.3 | 11\% | 28\% |
| 66 | 7 | 23 | 0.3043 | 40.00\% | 25.00\% | 9.2 | 5.8 | 76\% | 122\% |
| 67 | 1 | 15 | 0.0667 | 40.00\% | 25.00\% | 6.0 | 3.8 | 17\% | 27\% |
| 68 | 1 | 13 | 0.0769 | 40.00\% | 25.00\% | 5.2 | 3.3 | 19\% | 31\% |
| 69 | 3 | 10 | 0.3000 | 40.00\% | 25.00\% | 4.0 | 2.5 | 75\% | 120\% |
| 70 | 1 | 6 | 0.1667 | 100.00\% | 100.00\% | 6.0 | 6.0 | 17\% | 17\% |
| Subtotal | 208 | 965 |  |  |  | 402.8 | 245.8 | 52\% | 85\% |
| Other | 1 | 15 | 0.0667 | 100.00\% | 100.00\% | 15.0 | 15.0 | 7\% | 7\% |
| Total | 209 | 980 |  |  |  | 417.8 | 260.8 | 50\% | 80\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY TOTAL - MEN AND WOMEN

|  | TABLE 5A |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements <br> Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | Proposed $\text { (3) } \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 2 | 0.0000 | 20.00\% | 20.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 41 | 0 | 3 | 0.0000 | 20.00\% | 20.00\% | 0.6 | 0.6 | 0\% | 0\% |
| 42 | 0 | 10 | 0.0000 | 20.00\% | 20.00\% | 2.0 | 2.0 | 0\% | 0\% |
| 43 | 3 | 13 | 0.2308 | 20.00\% | 20.00\% | 2.6 | 2.6 | 115\% | 115\% |
| 44 | 2 | 28 | 0.0714 | 20.00\% | 20.00\% | 5.6 | 5.6 | 36\% | 36\% |
| 45 | 3 | 62 | 0.0484 | 20.00\% | 20.00\% | 12.4 | 12.4 | 24\% | 24\% |
| 46 | 5 | 82 | 0.0610 | 20.00\% | 20.00\% | 16.4 | 16.4 | 30\% | 30\% |
| 47 | 9 | 77 | 0.1169 | 20.00\% | 20.00\% | 15.4 | 15.4 | 58\% | 58\% |
| 48 | 17 | 82 | 0.2073 | 20.00\% | 20.00\% | 16.4 | 16.4 | 104\% | 104\% |
| 49 | 15 | 78 | 0.1923 | 20.00\% | 20.00\% | 15.6 | 15.6 | 96\% | 96\% |
| 50 | 15 | 63 | 0.2381 | 20.00\% | 20.00\% | 12.6 | 12.6 | 119\% | 119\% |
| 51 | 13 | 70 | 0.1857 | 20.00\% | 20.00\% | 14.0 | 14.0 | 93\% | 93\% |
| 52 | 16 | 55 | 0.2909 | 20.00\% | 20.00\% | 11.0 | 11.0 | 145\% | 145\% |
| 53 | 7 | 39 | 0.1795 | 20.00\% | 20.00\% | 7.8 | 7.8 | 90\% | 90\% |
| 54 | 12 | 43 | 0.2791 | 20.00\% | 20.00\% | 8.6 | 8.6 | 140\% | 140\% |
| 55 | 12 | 36 | 0.3333 | 20.00\% | 20.00\% | 7.2 | 7.2 | 167\% | 167\% |
| 56 | 8 | 33 | 0.2424 | 20.00\% | 20.00\% | 6.6 | 6.6 | 121\% | 121\% |
| 57 | 9 | 29 | 0.3103 | 20.00\% | 20.00\% | 5.8 | 5.8 | 155\% | 155\% |
| 58 | 9 | 39 | 0.2308 | 20.00\% | 20.00\% | 7.8 | 7.8 | 115\% | 115\% |
| 59 | 8 | 18 | 0.4444 | 20.00\% | 20.00\% | 3.6 | 3.6 | 222\% | 222\% |
| 60 | 2 | 16 | 0.1250 | 20.00\% | 20.00\% | 3.2 | 3.2 | 63\% | 63\% |
| 61 | 5 | 11 | 0.4545 | 30.00\% | 30.00\% | 3.3 | 3.3 | 152\% | 152\% |
| 62 | 5 | 9 | 0.5556 | 40.00\% | 40.00\% | 3.6 | 3.6 | 139\% | 139\% |
| 63 | 3 | 9 | 0.3333 | 30.00\% | 30.00\% | 2.7 | 2.7 | 111\% | 111\% |
| 64 | 4 | 8 | 0.5000 | 30.00\% | 30.00\% | 2.4 | 2.4 | 167\% | 167\% |
| 65 | 2 | 3 | 0.6667 | 40.00\% | 40.00\% | 1.2 | 1.2 | 167\% | 167\% |
| 66 | 2 | 4 | 0.5000 | 30.00\% | 30.00\% | 1.2 | 1.2 | 167\% | 167\% |
| 67 | 1 | 2 | 0.5000 | 30.00\% | 30.00\% | 0.6 | 0.6 | 167\% | 167\% |
| 68 | 1 | 1 | 1.0000 | 30.00\% | 30.00\% | 0.3 | 0.3 | 333\% | 333\% |
| 69 | 1 | 1 | 1.0000 | 30.00\% | 30.00\% | 0.3 | 0.3 | 333\% | 333\% |
| 70 | 1 | 1 | 1.0000 | 100.00\% | 100.00\% | 1.0 | 1.0 | 100\% | 100\% |
| Subtotal | 190 | 927 |  |  |  | 192.2 | 192.2 | 99\% | 99\% |
| Other | 2 | 5 | 0.4000 | 100.00\% | 100.00\% | 5.0 | 5.0 | 40\% | 40\% |
| Total | 192 | 932 |  |  |  | 197.2 | 197.2 | 97\% | 97\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 5B |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 4 | 0.0000 | 20.00\% | 20.00\% | 0.8 | 0.8 | 0\% | 0\% |
| 43 | 3 | 7 | 0.4286 | 20.00\% | 20.00\% | 1.4 | 1.4 | 214\% | 214\% |
| 44 | 2 | 22 | 0.0909 | 20.00\% | 20.00\% | 4.4 | 4.4 | 45\% | 45\% |
| 45 | 2 | 45 | 0.0444 | 20.00\% | 20.00\% | 9.0 | 9.0 | 22\% | 22\% |
| 46 | 4 | 65 | 0.0615 | 20.00\% | 20.00\% | 13.0 | 13.0 | 31\% | 31\% |
| 47 | 8 | 61 | 0.1311 | 20.00\% | 20.00\% | 12.2 | 12.2 | 66\% | 66\% |
| 48 | 14 | 65 | 0.2154 | 20.00\% | 20.00\% | 13.0 | 13.0 | 108\% | 108\% |
| 49 | 14 | 65 | 0.2154 | 20.00\% | 20.00\% | 13.0 | 13.0 | 108\% | 108\% |
| 50 | 15 | 53 | 0.2830 | 20.00\% | 20.00\% | 10.6 | 10.6 | 142\% | 142\% |
| 51 | 12 | 56 | 0.2143 | 20.00\% | 20.00\% | 11.2 | 11.2 | 107\% | 107\% |
| 52 | 13 | 48 | 0.2708 | 20.00\% | 20.00\% | 9.6 | 9.6 | 135\% | 135\% |
| 53 | 6 | 29 | 0.2069 | 20.00\% | 20.00\% | 5.8 | 5.8 | 103\% | 103\% |
| 54 | 11 | 38 | 0.2895 | 20.00\% | 20.00\% | 7.6 | 7.6 | 145\% | 145\% |
| 55 | 11 | 32 | 0.3438 | 20.00\% | 20.00\% | 6.4 | 6.4 | 172\% | 172\% |
| 56 | 8 | 29 | 0.2759 | 20.00\% | 20.00\% | 5.8 | 5.8 | 138\% | 138\% |
| 57 | 8 | 24 | 0.3333 | 20.00\% | 20.00\% | 4.8 | 4.8 | 167\% | 167\% |
| 58 | 8 | 33 | 0.2424 | 20.00\% | 20.00\% | 6.6 | 6.6 | 121\% | 121\% |
| 59 | 7 | 15 | 0.4667 | 20.00\% | 20.00\% | 3.0 | 3.0 | 233\% | 233\% |
| 60 | 2 | 12 | 0.1667 | 20.00\% | 20.00\% | 2.4 | 2.4 | 83\% | 83\% |
| 61 | 4 | 10 | 0.4000 | 30.00\% | 30.00\% | 3.0 | 3.0 | 133\% | 133\% |
| 62 | 4 | 8 | 0.5000 | 40.00\% | 40.00\% | 3.2 | 3.2 | 125\% | 125\% |
| 63 | 2 | 6 | 0.3333 | 30.00\% | 30.00\% | 1.8 | 1.8 | 111\% | 111\% |
| 64 | 3 | 4 | 0.7500 | 30.00\% | 30.00\% | 1.2 | 1.2 | 250\% | 250\% |
| 65 | 1 | 2 | 0.5000 | 40.00\% | 40.00\% | 0.8 | 0.8 | 125\% | 125\% |
| 66 | 1 | 3 | 0.3333 | 30.00\% | 30.00\% | 0.9 | 0.9 | 111\% | 111\% |
| 67 | 1 | 2 | 0.5000 | 30.00\% | 30.00\% | 0.6 | 0.6 | 167\% | 167\% |
| 68 | 1 | 1 | 1.0000 | 30.00\% | 30.00\% | 0.3 | 0.3 | 333\% | 333\% |
| 69 | 0 | 0 | N/A | 30.00\% | 30.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 1 | , | 1.0000 | 100.00\% | 100.00\% | 1.0 | 1.0 | 100\% | 100\% |
| Subtotal | 166 | 740 |  |  |  | 153.4 | 153.4 | 108\% | 108\% |
| Other | 1 | 1 | 1.0000 | 100.00\% | 100.00\% | 1.0 | 1.0 | 100\% | 100\% |
| Total | 167 | 741 |  |  |  | 154.4 | 154.4 | 108\% | 108\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY

MEN AND WOMEN - MANDATED RETIREMENT BENEFIT


NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY TOTAL - MEN AND WOMEN

|  | TABLE 5A |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements <br> Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) /(3) } \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | Proposed $(3) \times(6)$ | Expected $\text { (2) } /(7)$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 1 | 11 | 0.0909 | 20.00\% | 20.00\% | 2.2 | 2.2 | 45\% | 45\% |
| 41 | 5 | 28 | 0.1786 | 20.00\% | 20.00\% | 5.6 | 5.6 | 89\% | 89\% |
| 42 | 8 | 50 | 0.1600 | 20.00\% | 20.00\% | 10.0 | 10.0 | 80\% | 80\% |
| 43 | 16 | 59 | 0.2712 | 20.00\% | 20.00\% | 11.8 | 11.8 | 136\% | 136\% |
| 44 | 10 | 78 | 0.1282 | 20.00\% | 20.00\% | 15.6 | 15.6 | 64\% | 64\% |
| 45 | 11 | 110 | 0.1000 | 20.00\% | 20.00\% | 22.0 | 22.0 | 50\% | 50\% |
| 46 | 16 | 137 | 0.1168 | 20.00\% | 20.00\% | 27.4 | 27.4 | 58\% | 58\% |
| 47 | 23 | 139 | 0.1655 | 20.00\% | 20.00\% | 27.8 | 27.8 | 83\% | 83\% |
| 48 | 36 | 163 | 0.2209 | 20.00\% | 20.00\% | 32.6 | 32.6 | 110\% | 110\% |
| 49 | 41 | 206 | 0.1990 | 20.00\% | 20.00\% | 41.2 | 41.2 | 100\% | 100\% |
| 50 | 64 | 212 | 0.3019 | 20.00\% | 20.00\% | 42.4 | 42.4 | 151\% | 151\% |
| 51 | 56 | 224 | 0.2500 | 20.00\% | 20.00\% | 44.8 | 44.8 | 125\% | 125\% |
| 52 | 56 | 211 | 0.2654 | 20.00\% | 20.00\% | 42.2 | 42.2 | 133\% | 133\% |
| 53 | 39 | 145 | 0.2690 | 20.00\% | 20.00\% | 29.0 | 29.0 | 134\% | 134\% |
| 54 | 52 | 167 | 0.3114 | 20.00\% | 20.00\% | 33.4 | 33.4 | 156\% | 156\% |
| 55 | 42 | 115 | 0.3652 | 20.00\% | 20.00\% | 23.0 | 23.0 | 183\% | 183\% |
| 56 | 28 | 105 | 0.2667 | 20.00\% | 20.00\% | 21.0 | 21.0 | 133\% | 133\% |
| 57 | 19 | 81 | 0.2346 | 20.00\% | 20.00\% | 16.2 | 16.2 | 117\% | 117\% |
| 58 | 22 | 79 | 0.2785 | 20.00\% | 20.00\% | 15.8 | 15.8 | 139\% | 139\% |
| 59 | 19 | 56 | 0.3393 | 20.00\% | 20.00\% | 11.2 | 11.2 | 170\% | 170\% |
| 60 | 15 | 46 | 0.3261 | 20.00\% | 20.00\% | 9.2 | 9.2 | 163\% | 163\% |
| 61 | 10 | 22 | 0.4545 | 30.00\% | 30.00\% | 6.6 | 6.6 | 152\% | 152\% |
| 62 | 8 | 17 | 0.4706 | 40.00\% | 40.00\% | 6.8 | 6.8 | 118\% | 118\% |
| 63 | 13 | 27 | 0.4815 | 30.00\% | 30.00\% | 8.1 | 8.1 | 160\% | 160\% |
| 64 | 6 | 14 | 0.4286 | 30.00\% | 30.00\% | 4.2 | 4.2 | 143\% | 143\% |
| 65 | 6 | 8 | 0.7500 | 40.00\% | 40.00\% | 3.2 | 3.2 | 188\% | 188\% |
| 66 | 2 | 6 | 0.3333 | 30.00\% | 30.00\% | 1.8 | 1.8 | 111\% | 111\% |
| 67 | 2 | 3 | 0.6667 | 30.00\% | 30.00\% | 0.9 | 0.9 | 222\% | 222\% |
| 68 | 1 | 1 | 1.0000 | 30.00\% | 30.00\% | 0.3 | 0.3 | 333\% | 333\% |
| 69 | 1 | 3 | 0.3333 | 30.00\% | 30.00\% | 0.9 | 0.9 | 111\% | 111\% |
| 70 | 1 | 1 | 1.0000 | 100.00\% | 100.00\% | 1.0 | 1.0 | 100\% | 100\% |
| Subtotal | 629 | 2,524 |  |  |  | 518.2 | 518.2 | 121\% | 121\% |
| Other | 2 | 7 | 0.2857 | 100.00\% | 100.00\% | 7.0 | 7.0 | 29\% | 29\% |
| Total | 631 | 2,531 |  |  |  | 525.2 | 525.2 | 120\% | 120\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 5B |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) / (3) } \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | Proposed $(3) \times(6)$ | Expected $\text { (2) } /(7)$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 1 | 7 | 0.1429 | 20.00\% | 20.00\% | 1.4 | 1.4 | 71\% | 71\% |
| 41 | 5 | 22 | 0.2273 | 20.00\% | 20.00\% | 4.4 | 4.4 | 114\% | 114\% |
| 42 | 7 | 37 | 0.1892 | 20.00\% | 20.00\% | 7.4 | 7.4 | 95\% | 95\% |
| 43 | 16 | 48 | 0.3333 | 20.00\% | 20.00\% | 9.6 | 9.6 | 167\% | 167\% |
| 44 | 10 | 64 | 0.1563 | 20.00\% | 20.00\% | 12.8 | 12.8 | 78\% | 78\% |
| 45 | 10 | 88 | 0.1136 | 20.00\% | 20.00\% | 17.6 | 17.6 | 57\% | 57\% |
| 46 | 15 | 117 | 0.1282 | 20.00\% | 20.00\% | 23.4 | 23.4 | 64\% | 64\% |
| 47 | 21 | 119 | 0.1765 | 20.00\% | 20.00\% | 23.8 | 23.8 | 88\% | 88\% |
| 48 | 23 | 132 | 0.1742 | 20.00\% | 20.00\% | 26.4 | 26.4 | 87\% | 87\% |
| 49 | 27 | 171 | 0.1579 | 20.00\% | 20.00\% | 34.2 | 34.2 | 79\% | 79\% |
| 50 | 52 | 188 | 0.2766 | 20.00\% | 20.00\% | 37.6 | 37.6 | 138\% | 138\% |
| 51 | 44 | 196 | 0.2245 | 20.00\% | 20.00\% | 39.2 | 39.2 | 112\% | 112\% |
| 52 | 43 | 192 | 0.2240 | 20.00\% | 20.00\% | 38.4 | 38.4 | 112\% | 112\% |
| 53 | 33 | 128 | 0.2578 | 20.00\% | 20.00\% | 25.6 | 25.6 | 129\% | 129\% |
| 54 | 41 | 149 | 0.2752 | 20.00\% | 20.00\% | 29.8 | 29.8 | 138\% | 138\% |
| 55 | 35 | 103 | 0.3398 | 20.00\% | 20.00\% | 20.6 | 20.6 | 170\% | 170\% |
| 56 | 21 | 92 | 0.2283 | 20.00\% | 20.00\% | 18.4 | 18.4 | 114\% | 114\% |
| 57 | 15 | 70 | 0.2143 | 20.00\% | 20.00\% | 14.0 | 14.0 | 107\% | 107\% |
| 58 | 17 | 69 | 0.2464 | 20.00\% | 20.00\% | 13.8 | 13.8 | 123\% | 123\% |
| 59 | 18 | 51 | 0.3529 | 20.00\% | 20.00\% | 10.2 | 10.2 | 176\% | 176\% |
| 60 | 14 | 41 | 0.3415 | 20.00\% | 20.00\% | 8.2 | 8.2 | 171\% | 171\% |
| 61 | 9 | 21 | 0.4286 | 30.00\% | 30.00\% | 6.3 | 6.3 | 143\% | 143\% |
| 62 | 7 | 16 | 0.4375 | 40.00\% | 40.00\% | 6.4 | 6.4 | 109\% | 109\% |
| 63 | 8 | 16 | 0.5000 | 30.00\% | 30.00\% | 4.8 | 4.8 | 167\% | 167\% |
| 64 | 5 | 10 | 0.5000 | 30.00\% | 30.00\% | 3.0 | 3.0 | 167\% | 167\% |
| 65 | 5 | 7 | 0.7143 | 40.00\% | 40.00\% | 2.8 | 2.8 | 179\% | 179\% |
| 66 | 1 | 5 | 0.2000 | 30.00\% | 30.00\% | 1.5 | 1.5 | 67\% | 67\% |
| 67 | 2 | 3 | 0.6667 | 30.00\% | 30.00\% | 0.9 | 0.9 | 222\% | 222\% |
| 68 | 1 | 1 | 1.0000 | 30.00\% | 30.00\% | 0.3 | 0.3 | 333\% | 333\% |
| 69 | 0 | 2 | 0.0000 | 30.00\% | 30.00\% | 0.6 | 0.6 | 0\% | 0\% |
| 70 | 1 | 1 | 1.0000 | 100.00\% | 100.00\% | 1.0 | 1.0 | 100\% | 100\% |
| Subtotal | 507 | 2,166 |  |  |  | 444.4 | 444.4 | 114\% | 114\% |
| Other | 1 | 2 | 0.5000 | 100.00\% | 100.00\% | 2.0 | 2.0 | 50\% | 50\% |
| Total | 508 | 2,168 |  |  |  | 446.4 | 446.4 | 114\% | 114\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY

MEN AND WOMEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 5C |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements <br> Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 4 | 0.0000 | 20.00\% | 20.00\% | 0.8 | 0.8 | 0\% | 0\% |
| 41 | 0 | 6 | 0.0000 | 20.00\% | 20.00\% | 1.2 | 1.2 | 0\% | 0\% |
| 42 | 1 | 13 | 0.0769 | 20.00\% | 20.00\% | 2.6 | 2.6 | 38\% | 38\% |
| 43 | 0 | 11 | 0.0000 | 20.00\% | 20.00\% | 2.2 | 2.2 | 0\% | 0\% |
| 44 | 0 | 14 | 0.0000 | 20.00\% | 20.00\% | 2.8 | 2.8 | 0\% | 0\% |
| 45 | 1 | 22 | 0.0455 | 20.00\% | 20.00\% | 4.4 | 4.4 | 23\% | 23\% |
| 46 | 1 | 20 | 0.0500 | 20.00\% | 20.00\% | 4.0 | 4.0 | 25\% | 25\% |
| 47 | 2 | 20 | 0.1000 | 20.00\% | 20.00\% | 4.0 | 4.0 | 50\% | 50\% |
| 48 | 13 | 31 | 0.4194 | 20.00\% | 20.00\% | 6.2 | 6.2 | 210\% | 210\% |
| 49 | 14 | 35 | 0.4000 | 20.00\% | 20.00\% | 7.0 | 7.0 | 200\% | 200\% |
| 50 | 12 | 24 | 0.5000 | 20.00\% | 20.00\% | 4.8 | 4.8 | 250\% | 250\% |
| 51 | 12 | 28 | 0.4286 | 20.00\% | 20.00\% | 5.6 | 5.6 | 214\% | 214\% |
| 52 | 13 | 19 | 0.6842 | 20.00\% | 20.00\% | 3.8 | 3.8 | 342\% | 342\% |
| 53 | 6 | 17 | 0.3529 | 20.00\% | 20.00\% | 3.4 | 3.4 | 176\% | 176\% |
| 54 | 11 | 18 | 0.6111 | 20.00\% | 20.00\% | 3.6 | 3.6 | 306\% | 306\% |
| 55 | 7 | 12 | 0.5833 | 20.00\% | 20.00\% | 2.4 | 2.4 | 292\% | 292\% |
| 56 | 7 | 13 | 0.5385 | 20.00\% | 20.00\% | 2.6 | 2.6 | 269\% | 269\% |
| 57 | 4 | 11 | 0.3636 | 20.00\% | 20.00\% | 2.2 | 2.2 | 182\% | 182\% |
| 58 | 5 | 10 | 0.5000 | 20.00\% | 20.00\% | 2.0 | 2.0 | 250\% | 250\% |
| 59 | 1 | 5 | 0.2000 | 20.00\% | 20.00\% | 1.0 | 1.0 | 100\% | 100\% |
| 60 | 1 | 5 | 0.2000 | 20.00\% | 20.00\% | 1.0 | 1.0 | 100\% | 100\% |
| 61 | 1 | 1 | 1.0000 | 30.00\% | 30.00\% | 0.3 | 0.3 | 333\% | 333\% |
| 62 | 1 | 1 | 1.0000 | 40.00\% | 40.00\% | 0.4 | 0.4 | 250\% | 250\% |
| 63 | 5 | 11 | 0.4545 | 30.00\% | 30.00\% | 3.3 | 3.3 | 152\% | 152\% |
| 64 | 1 | 4 | 0.2500 | 30.00\% | 30.00\% | 1.2 | 1.2 | 83\% | 83\% |
| 65 | 1 | 1 | 1.0000 | 40.00\% | 40.00\% | 0.4 | 0.4 | 250\% | 250\% |
| 66 | 1 | 1 | 1.0000 | 30.00\% | 30.00\% | 0.3 | 0.3 | 333\% | 333\% |
| 67 | 0 | 0 | N/A | 30.00\% | 30.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 30.00\% | 30.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 1 | 1 | 1.0000 | 30.00\% | 30.00\% | 0.3 | 0.3 | 333\% | 333\% |
| 70 | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 122 | 358 |  |  |  | 73.8 | 73.8 | 165\% | 165\% |
| Other | 1 | 5 | 0.2000 | 100.00\% | 100.00\% | 5.0 | 5.0 | 20\% | 20\% |
| Total | 123 | 363 |  |  |  | 78.8 | 78.8 | 156\% | 156\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY TOTAL - MEN AND WOMEN

| Age | TABLE 6A |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements <br> Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed <br> (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 2 | 0.0000 | 20.00\% | 20.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 41 | 0 | 6 | 0.0000 | 18.33\% | 16.67\% | 1.1 | 1.0 | 0\% | 0\% |
| 42 | 0 | 11 | 0.0000 | 17.73\% | 15.45\% | 2.0 | 1.7 | 0\% | 0\% |
| 43 | 2 | 27 | 0.0741 | 16.48\% | 12.96\% | 4.5 | 3.5 | 45\% | 57\% |
| 44 | 1 | 55 | 0.0182 | 16.36\% | 12.73\% | 9.0 | 7.0 | 11\% | 14\% |
| 45 | 15 | 107 | 0.1402 | 16.17\% | 12.34\% | 17.3 | 13.2 | 87\% | 114\% |
| 46 | 10 | 166 | 0.0602 | 16.11\% | 12.23\% | 26.8 | 20.3 | 37\% | 49\% |
| 47 | 10 | 238 | 0.0420 | 16.03\% | 12.06\% | 38.2 | 28.7 | 26\% | 35\% |
| 48 | 12 | 273 | 0.0440 | 15.93\% | 11.87\% | 43.5 | 32.4 | 28\% | 37\% |
| 49 | 19 | 297 | 0.0640 | 15.81\% | 11.62\% | 47.0 | 34.5 | 40\% | 55\% |
| 50 | 18 | 280 | 0.0643 | 15.71\% | 11.43\% | 44.0 | 32.0 | 41\% | 56\% |
| 51 | 17 | 262 | 0.0649 | 15.74\% | 11.49\% | 41.3 | 30.1 | 41\% | 56\% |
| 52 | 18 | 247 | 0.0729 | 15.61\% | 11.21\% | 38.6 | 27.7 | 47\% | 65\% |
| 53 | 17 | 218 | 0.0780 | 15.60\% | 11.19\% | 34.0 | 24.4 | 50\% | 70\% |
| 54 | 19 | 239 | 0.0795 | 15.56\% | 11.13\% | 37.2 | 26.6 | 51\% | 71\% |
| 55 | 36 | 278 | 0.1295 | 15.49\% | 15.49\% | 43.1 | 43.1 | 84\% | 84\% |
| 56 | 41 | 309 | 0.1327 | 16.17\% | 15.21\% | 50.0 | 47.0 | 82\% | 87\% |
| 57 | 43 | 301 | 0.1429 | 17.14\% | 15.23\% | 51.6 | 45.9 | 83\% | 94\% |
| 58 | 37 | 274 | 0.1350 | 18.08\% | 15.20\% | 49.5 | 41.7 | 75\% | 89\% |
| 59 | 41 | 242 | 0.1694 | 19.04\% | 15.21\% | 46.1 | 36.8 | 89\% | 111\% |
| 60 | 41 | 179 | 0.2291 | 20.00\% | 20.00\% | 35.8 | 35.8 | 115\% | 115\% |
| 61 | 20 | 135 | 0.1481 | 25.48\% | 20.96\% | 34.4 | 28.3 | 58\% | 71\% |
| 62 | 27 | 108 | 0.2500 | 30.83\% | 26.25\% | 33.3 | 28.4 | 81\% | 95\% |
| 63 | 23 | 79 | 0.2911 | 21.39\% | 30.00\% | 16.9 | 23.7 | 136\% | 97\% |
| 64 | 12 | 51 | 0.2353 | 21.76\% | 34.12\% | 11.1 | 17.4 | 108\% | 69\% |
| 65 | 12 | 36 | 0.3333 | 33.06\% | 36.53\% | 11.9 | 13.2 | 101\% | 91\% |
| 66 | 6 | 22 | 0.2727 | 22.73\% | 33.64\% | 5.0 | 7.4 | 120\% | 81\% |
| 67 | 0 | 12 | 0.0000 | 23.33\% | 33.33\% | 2.8 | 4.0 | 0\% | 0\% |
| 68 | 0 | 9 | 0.0000 | 22.22\% | 33.89\% | 2.0 | 3.1 | 0\% | 0\% |
| 69 | 0 | 5 | 0.0000 | 22.00\% | 34.00\% | 1.1 | 1.7 | 0\% | 0\% |
| 70 | 1 | 4 | 0.2500 | 100.00\% | 100.00\% | 4.0 | 4.0 | 25\% | 25\% |
| Subtotal | 498 | 4,472 |  |  |  | 783.1 | 664.7 | 64\% | 75\% |
| Other | 2 | 10 | 0.2000 | 100.00\% | 100.00\% | 10.0 | 10.0 | 20\% | 20\% |
| Total | 500 | 4,482 |  |  |  | 793.1 | 674.7 | 63\% | 74\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

| Age | TABLE 6B |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements <br> Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 15.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 2 | 0.0000 | 15.00\% | 10.00\% | 0.3 | 0.2 | 0\% | 0\% |
| 42 | 0 | 5 | 0.0000 | 15.00\% | 10.00\% | 0.8 | 0.5 | 0\% | 0\% |
| 43 | 1 | 19 | 0.0526 | 15.00\% | 10.00\% | 2.9 | 1.9 | 35\% | 53\% |
| 44 | 1 | 40 | 0.0250 | 15.00\% | 10.00\% | 6.0 | 4.0 | 17\% | 25\% |
| 45 | 15 | 82 | 0.1829 | 15.00\% | 10.00\% | 12.3 | 8.2 | 122\% | 183\% |
| 46 | 9 | 129 | 0.0698 | 15.00\% | 10.00\% | 19.4 | 12.9 | 47\% | 70\% |
| 47 | 9 | 189 | 0.0476 | 15.00\% | 10.00\% | 28.4 | 18.9 | 32\% | 48\% |
| 48 | 12 | 222 | 0.0541 | 15.00\% | 10.00\% | 33.3 | 22.2 | 36\% | 54\% |
| 49 | 17 | 249 | 0.0683 | 15.00\% | 10.00\% | 37.4 | 24.9 | 46\% | 68\% |
| 50 | 18 | 240 | 0.0750 | 15.00\% | 10.00\% | 36.0 | 24.0 | 50\% | 75\% |
| 51 | 16 | 223 | 0.0717 | 15.00\% | 10.00\% | 33.5 | 22.3 | 48\% | 72\% |
| 52 | 18 | 217 | 0.0829 | 15.00\% | 10.00\% | 32.6 | 21.7 | 55\% | 83\% |
| 53 | 17 | 192 | 0.0885 | 15.00\% | 10.00\% | 28.8 | 19.2 | 59\% | 89\% |
| 54 | 19 | 212 | 0.0896 | 15.00\% | 10.00\% | 31.8 | 21.2 | 60\% | 90\% |
| 55 | 36 | 251 | 0.1434 | 15.00\% | 15.00\% | 37.7 | 37.7 | 96\% | 96\% |
| 56 | 40 | 296 | 0.1351 | 16.00\% | 15.00\% | 47.4 | 44.4 | 84\% | 90\% |
| 57 | 42 | 287 | 0.1463 | 17.00\% | 15.00\% | 48.8 | 43.1 | 86\% | 98\% |
| 58 | 37 | 263 | 0.1407 | 18.00\% | 15.00\% | 47.3 | 39.5 | 78\% | 94\% |
| 59 | 38 | 232 | 0.1638 | 19.00\% | 15.00\% | 44.1 | 34.8 | 86\% | 109\% |
| 60 | 40 | 170 | 0.2353 | 20.00\% | 20.00\% | 34.0 | 34.0 | 118\% | 118\% |
| 61 | 19 | 122 | 0.1557 | 25.00\% | 20.00\% | 30.5 | 24.4 | 62\% | 78\% |
| 62 | 24 | 99 | 0.2424 | 30.00\% | 25.00\% | 29.7 | 24.8 | 81\% | 97\% |
| 63 | 21 | 68 | 0.3088 | 20.00\% | 30.00\% | 13.6 | 20.4 | 154\% | 103\% |
| 64 | 11 | 42 | 0.2619 | 20.00\% | 35.00\% | 8.4 | 14.7 | 131\% | 75\% |
| 65 | 10 | 25 | 0.4000 | 30.00\% | 35.00\% | 7.5 | 8.8 | 133\% | 114\% |
| 66 | 5 | 16 | 0.3125 | 20.00\% | 35.00\% | 3.2 | 5.6 | 156\% | 89\% |
| 67 | 0 | 8 | 0.0000 | 20.00\% | 35.00\% | 1.6 | 2.8 | 0\% | 0\% |
| 68 | 0 | 7 | 0.0000 | 20.00\% | 35.00\% | 1.4 | 2.5 | 0\% | 0\% |
| 69 | 0 | 4 | 0.0000 | 20.00\% | 35.00\% | 0.8 | 1.4 | 0\% | 0\% |
| 70 | 0 | 2 | 0.0000 | 100.00\% | 100.00\% | 2.0 | 2.0 | 0\% | 0\% |
| Subtotal | 475 | 3,913 |  |  |  | 661.1 | 542.7 | 72\% | 88\% |
| Other | 1 | 8 | 0.1250 | 100.00\% | 100.00\% | 8.0 | 8.0 | 13\% | 13\% |
| Total | 476 | 3,921 |  |  |  | 669.1 | 550.7 | 71\% | 86\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 6C |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 2 | 0.0000 | 20.00\% | 20.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 41 | 0 | 4 | 0.0000 | 20.00\% | 20.00\% | 0.8 | 0.8 | 0\% | 0\% |
| 42 | 0 | 6 | 0.0000 | 20.00\% | 20.00\% | 1.2 | 1.2 | 0\% | 0\% |
| 43 | 1 | 8 | 0.1250 | 20.00\% | 20.00\% | 1.6 | 1.6 | 63\% | 63\% |
| 44 | 0 | 15 | 0.0000 | 20.00\% | 20.00\% | 3.0 | 3.0 | 0\% | 0\% |
| 45 | 0 | 25 | 0.0000 | 20.00\% | 20.00\% | 5.0 | 5.0 | 0\% | 0\% |
| 46 | 1 | 37 | 0.0270 | 20.00\% | 20.00\% | 7.4 | 7.4 | 14\% | 14\% |
| 47 | 1 | 49 | 0.0204 | 20.00\% | 20.00\% | 9.8 | 9.8 | 10\% | 10\% |
| 48 | 0 | 51 | 0.0000 | 20.00\% | 20.00\% | 10.2 | 10.2 | 0\% | 0\% |
| 49 | 2 | 48 | 0.0417 | 20.00\% | 20.00\% | 9.6 | 9.6 | 21\% | 21\% |
| 50 | 0 | 40 | 0.0000 | 20.00\% | 20.00\% | 8.0 | 8.0 | 0\% | 0\% |
| 51 | 1 | 39 | 0.0256 | 20.00\% | 20.00\% | 7.8 | 7.8 | 13\% | 13\% |
| 52 | 0 | 30 | 0.0000 | 20.00\% | 20.00\% | 6.0 | 6.0 | 0\% | 0\% |
| 53 | 0 | 26 | 0.0000 | 20.00\% | 20.00\% | 5.2 | 5.2 | 0\% | 0\% |
| 54 | 0 | 27 | 0.0000 | 20.00\% | 20.00\% | 5.4 | 5.4 | 0\% | 0\% |
| 55 | 0 | 27 | 0.0000 | 20.00\% | 20.00\% | 5.4 | 5.4 | 0\% | 0\% |
| 56 | 1 | 13 | 0.0769 | 20.00\% | 20.00\% | 2.6 | 2.6 | 38\% | 38\% |
| 57 | 1 | 14 | 0.0714 | 20.00\% | 20.00\% | 2.8 | 2.8 | 36\% | 36\% |
| 58 | 0 | 11 | 0.0000 | 20.00\% | 20.00\% | 2.2 | 2.2 | 0\% | 0\% |
| 59 | 3 | 10 | 0.3000 | 20.00\% | 20.00\% | 2.0 | 2.0 | 150\% | 150\% |
| 60 | 1 | 9 | 0.1111 | 20.00\% | 20.00\% | 1.8 | 1.8 | 56\% | 56\% |
| 61 | 1 | 13 | 0.0769 | 30.00\% | 30.00\% | 3.9 | 3.9 | 26\% | 26\% |
| 62 | 3 | 9 | 0.3333 | 40.00\% | 40.00\% | 3.6 | 3.6 | 83\% | 83\% |
| 63 | 2 | 11 | 0.1818 | 30.00\% | 30.00\% | 3.3 | 3.3 | 61\% | 61\% |
| 64 | 1 | 9 | 0.1111 | 30.00\% | 30.00\% | 2.7 | 2.7 | 37\% | 37\% |
| 65 | 2 | 11 | 0.1818 | 40.00\% | 40.00\% | 4.4 | 4.4 | 45\% | 45\% |
| 66 | 1 | 6 | 0.1667 | 30.00\% | 30.00\% | 1.8 | 1.8 | 56\% | 56\% |
| 67 | 0 | 4 | 0.0000 | 30.00\% | 30.00\% | 1.2 | 1.2 | 0\% | 0\% |
| 68 | 0 | 2 | 0.0000 | 30.00\% | 30.00\% | 0.6 | 0.6 | 0\% | 0\% |
| 69 | 0 | 1 | 0.0000 | 30.00\% | 30.00\% | 0.3 | 0.3 | 0\% | 0\% |
| 70 | 1 | 2 | 0.5000 | 100.00\% | 100.00\% | 2.0 | 2.0 | 50\% | 50\% |
| Subtotal | 23 | 559 |  |  |  | 122.0 | 122.0 | 19\% | 19\% |
| Other | 1 | 2 | 0.5000 | 100.00\% | 100.00\% | 2.0 | 2.0 | 50\% | 50\% |
| Total | 24 | 561 |  |  |  | 124.0 | 124.0 | 19\% | 19\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY TOTAL - MEN AND WOMEN

|  | TABLE 6A |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 4 | 0.0000 | 17.50\% | 15.00\% | 0.7 | 0.6 | 0\% | 0\% |
| 41 | 0 | 16 | 0.0000 | 17.19\% | 14.38\% | 2.8 | 2.3 | 0\% | 0\% |
| 42 | 1 | 40 | 0.0250 | 16.63\% | 13.25\% | 6.7 | 5.3 | 15\% | 19\% |
| 43 | 4 | 79 | 0.0506 | 16.33\% | 12.66\% | 12.9 | 10.0 | 31\% | 40\% |
| 44 | 3 | 119 | 0.0252 | 16.26\% | 12.52\% | 19.4 | 14.9 | 16\% | 20\% |
| 45 | 20 | 182 | 0.1099 | 16.18\% | 12.36\% | 29.5 | 22.5 | 68\% | 89\% |
| 46 | 15 | 251 | 0.0598 | 16.14\% | 12.27\% | 40.5 | 30.8 | 37\% | 49\% |
| 47 | 17 | 348 | 0.0489 | 16.02\% | 12.04\% | 55.8 | 41.9 | 30\% | 41\% |
| 48 | 26 | 433 | 0.0600 | 15.80\% | 11.59\% | 68.4 | 50.2 | 38\% | 52\% |
| 49 | 53 | 541 | 0.0980 | 15.71\% | 11.42\% | 85.0 | 61.8 | 62\% | 86\% |
| 50 | 70 | 621 | 0.1127 | 15.64\% | 11.29\% | 97.2 | 70.1 | 72\% | 100\% |
| 51 | 93 | 679 | 0.1370 | 15.58\% | 11.16\% | 105.8 | 75.8 | 88\% | 123\% |
| 52 | 91 | 712 | 0.1278 | 15.42\% | 10.84\% | 109.8 | 77.2 | 83\% | 118\% |
| 53 | 96 | 728 | 0.1319 | 15.36\% | 10.71\% | 111.8 | 78.0 | 86\% | 123\% |
| 54 | 92 | 711 | 0.1294 | 15.41\% | 10.83\% | 109.6 | 77.0 | 84\% | 119\% |
| 55 | 97 | 698 | 0.1390 | 15.38\% | 15.38\% | 107.4 | 107.4 | 90\% | 90\% |
| 56 | 107 | 643 | 0.1664 | 16.28\% | 15.35\% | 104.7 | 98.7 | 102\% | 108\% |
| 57 | 98 | 598 | 0.1639 | 17.29\% | 15.48\% | 103.4 | 92.6 | 95\% | 106\% |
| 58 | 76 | 511 | 0.1487 | 18.18\% | 15.44\% | 92.9 | 78.9 | 82\% | 96\% |
| 59 | 76 | 425 | 0.1788 | 19.09\% | 15.47\% | 81.2 | 65.8 | 94\% | 116\% |
| 60 | 78 | 331 | 0.2356 | 20.00\% | 20.00\% | 66.2 | 66.2 | 118\% | 118\% |
| 61 | 41 | 239 | 0.1715 | 25.73\% | 21.46\% | 61.5 | 51.3 | 67\% | 80\% |
| 62 | 56 | 184 | 0.3043 | 31.96\% | 27.93\% | 58.8 | 51.4 | 95\% | 109\% |
| 63 | 33 | 114 | 0.2895 | 22.37\% | 30.00\% | 25.5 | 34.2 | 129\% | 96\% |
| 64 | 19 | 81 | 0.2346 | 23.70\% | 33.15\% | 19.2 | 26.9 | 99\% | 71\% |
| 65 | 15 | 59 | 0.2542 | 34.41\% | 37.20\% | 20.3 | 22.0 | 74\% | 68\% |
| 66 | 14 | 48 | 0.2917 | 25.21\% | 32.40\% | 12.1 | 15.6 | 116\% | 90\% |
| 67 | 4 | 32 | 0.1250 | 25.63\% | 32.19\% | 8.2 | 10.3 | 49\% | 39\% |
| 68 | 10 | 26 | 0.3846 | 26.15\% | 31.92\% | 6.8 | 8.3 | 147\% | 120\% |
| 69 | 2 | 12 | 0.1667 | 25.00\% | 32.50\% | 3.0 | 3.9 | 67\% | 51\% |
| 70 | 2 | 9 | 0.2222 | 100.00\% | 100.00\% | 9.0 | 9.0 | 22\% | 22\% |
| Subtotal | 1,309 | 9,474 |  |  |  | 1,635.6 | 1,360.6 | 80\% | 96\% |
| Other | 5 | 30 | 0.1667 | 100.00\% | 100.00\% | 30.0 | 30.0 | 17\% | 17\% |
| Total | 1,314 | 9,504 |  |  |  | 1,665.6 | 1,390.6 | 79\% | 94\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 6B |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed <br> (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 2 | 0.0000 | 15.00\% | 10.00\% | 0.3 | 0.2 | 0\% | 0\% |
| 41 | 0 | 9 | 0.0000 | 15.00\% | 10.00\% | 1.4 | 0.9 | 0\% | 0\% |
| 42 | 1 | 27 | 0.0370 | 15.00\% | 10.00\% | 4.1 | 2.7 | 25\% | 37\% |
| 43 | 3 | 58 | 0.0517 | 15.00\% | 10.00\% | 8.7 | 5.8 | 34\% | 52\% |
| 44 | 3 | 89 | 0.0337 | 15.00\% | 10.00\% | 13.4 | 8.9 | 22\% | 34\% |
| 45 | 20 | 139 | 0.1439 | 15.00\% | 10.00\% | 20.9 | 13.9 | 96\% | 144\% |
| 46 | 14 | 194 | 0.0722 | 15.00\% | 10.00\% | 29.1 | 19.4 | 48\% | 72\% |
| 47 | 13 | 277 | 0.0469 | 15.00\% | 10.00\% | 41.6 | 27.7 | 31\% | 47\% |
| 48 | 22 | 364 | 0.0604 | 15.00\% | 10.00\% | 54.6 | 36.4 | 40\% | 60\% |
| 49 | 38 | 464 | 0.0819 | 15.00\% | 10.00\% | 69.6 | 46.4 | 55\% | 82\% |
| 50 | 51 | 541 | 0.0943 | 15.00\% | 10.00\% | 81.2 | 54.1 | 63\% | 94\% |
| 51 | 69 | 600 | 0.1150 | 15.00\% | 10.00\% | 90.0 | 60.0 | 77\% | 115\% |
| 52 | 71 | 652 | 0.1089 | 15.00\% | 10.00\% | 97.8 | 65.2 | 73\% | 109\% |
| 53 | 83 | 676 | 0.1228 | 15.00\% | 10.00\% | 101.4 | 67.6 | 82\% | 123\% |
| 54 | 75 | 652 | 0.1150 | 15.00\% | 10.00\% | 97.8 | 65.2 | 77\% | 115\% |
| 55 | 87 | 645 | 0.1349 | 15.00\% | 15.00\% | 96.8 | 96.8 | 90\% | 90\% |
| 56 | 90 | 598 | 0.1505 | 16.00\% | 15.00\% | 95.7 | 89.7 | 94\% | 100\% |
| 57 | 76 | 541 | 0.1405 | 17.00\% | 15.00\% | 92.0 | 81.2 | 83\% | 94\% |
| 58 | 65 | 466 | 0.1395 | 18.00\% | 15.00\% | 83.9 | 69.9 | 77\% | 93\% |
| 59 | 67 | 385 | 0.1740 | 19.00\% | 15.00\% | 73.2 | 57.8 | 92\% | 116\% |
| 60 | 62 | 290 | 0.2138 | 20.00\% | 20.00\% | 58.0 | 58.0 | 107\% | 107\% |
| 61 | 36 | 204 | 0.1765 | 25.00\% | 20.00\% | 51.0 | 40.8 | 71\% | 88\% |
| 62 | 44 | 148 | 0.2973 | 30.00\% | 25.00\% | 44.4 | 37.0 | 99\% | 119\% |
| 63 | 27 | 87 | 0.3103 | 20.00\% | 30.00\% | 17.4 | 26.1 | 155\% | 103\% |
| 64 | 11 | 51 | 0.2157 | 20.00\% | 35.00\% | 10.2 | 17.9 | 108\% | 62\% |
| 65 | 10 | 33 | 0.3030 | 30.00\% | 35.00\% | 9.9 | 11.6 | 101\% | 87\% |
| 66 | 7 | 23 | 0.3043 | 20.00\% | 35.00\% | 4.6 | 8.1 | 152\% | 87\% |
| 67 | 2 | 14 | 0.1429 | 20.00\% | 35.00\% | 2.8 | 4.9 | 71\% | 41\% |
| 68 | 1 | 10 | 0.1000 | 20.00\% | 35.00\% | 2.0 | 3.5 | 50\% | 29\% |
| 69 | 0 | 6 | 0.0000 | 20.00\% | 35.00\% | 1.2 | 2.1 | 0\% | 0\% |
| 70 | 0 | 5 | 0.0000 | 100.00\% | 100.00\% | 5.0 | 5.0 | 0\% | 0\% |
| Subtotal | 1,048 | 8,250 |  |  |  | 1,359.5 | 1,084.5 | 77\% | 97\% |
| Other | 2 | 14 | 0.1429 | 100.00\% | 100.00\% | 14.0 | 14.0 | 14\% | 14\% |
| Total | 1,050 | 8,264 |  |  |  | 1,373.5 | 1,098.5 | 76\% | 96\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY

MEN AND WOMEN - MANDATED RETIREMENT BENEFIT

| Age | TABLE 6C |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements <br> Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Retirements | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 2 | 0.0000 | 20.00\% | 20.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 41 | 0 | 7 | 0.0000 | 20.00\% | 20.00\% | 1.4 | 1.4 | 0\% | 0\% |
| 42 | 0 | 13 | 0.0000 | 20.00\% | 20.00\% | 2.6 | 2.6 | 0\% | 0\% |
| 43 | 1 | 21 | 0.0476 | 20.00\% | 20.00\% | 4.2 | 4.2 | 24\% | 24\% |
| 44 | 0 | 30 | 0.0000 | 20.00\% | 20.00\% | 6.0 | 6.0 | 0\% | 0\% |
| 45 | 0 | 43 | 0.0000 | 20.00\% | 20.00\% | 8.6 | 8.6 | 0\% | 0\% |
| 46 | 1 | 57 | 0.0175 | 20.00\% | 20.00\% | 11.4 | 11.4 | 9\% | 9\% |
| 47 | 4 | 71 | 0.0563 | 20.00\% | 20.00\% | 14.2 | 14.2 | 28\% | 28\% |
| 48 | 4 | 69 | 0.0580 | 20.00\% | 20.00\% | 13.8 | 13.8 | 29\% | 29\% |
| 49 | 15 | 77 | 0.1948 | 20.00\% | 20.00\% | 15.4 | 15.4 | 97\% | 97\% |
| 50 | 19 | 80 | 0.2375 | 20.00\% | 20.00\% | 16.0 | 16.0 | 119\% | 119\% |
| 51 | 24 | 79 | 0.3038 | 20.00\% | 20.00\% | 15.8 | 15.8 | 152\% | 152\% |
| 52 | 20 | 60 | 0.3333 | 20.00\% | 20.00\% | 12.0 | 12.0 | 167\% | 167\% |
| 53 | 13 | 52 | 0.2500 | 20.00\% | 20.00\% | 10.4 | 10.4 | 125\% | 125\% |
| 54 | 17 | 59 | 0.2881 | 20.00\% | 20.00\% | 11.8 | 11.8 | 144\% | 144\% |
| 55 | 10 | 53 | 0.1887 | 20.00\% | 20.00\% | 10.6 | 10.6 | 94\% | 94\% |
| 56 | 17 | 45 | 0.3778 | 20.00\% | 20.00\% | 9.0 | 9.0 | 189\% | 189\% |
| 57 | 22 | 57 | 0.3860 | 20.00\% | 20.00\% | 11.4 | 11.4 | 193\% | 193\% |
| 58 | 11 | 45 | 0.2444 | 20.00\% | 20.00\% | 9.0 | 9.0 | 122\% | 122\% |
| 59 | 9 | 40 | 0.2250 | 20.00\% | 20.00\% | 8.0 | 8.0 | 113\% | 113\% |
| 60 | 16 | 41 | 0.3902 | 20.00\% | 20.00\% | 8.2 | 8.2 | 195\% | 195\% |
| 61 | 5 | 35 | 0.1429 | 30.00\% | 30.00\% | 10.5 | 10.5 | 48\% | 48\% |
| 62 | 12 | 36 | 0.3333 | 40.00\% | 40.00\% | 14.4 | 14.4 | 83\% | 83\% |
| 63 | 6 | 27 | 0.2222 | 30.00\% | 30.00\% | 8.1 | 8.1 | 74\% | 74\% |
| 64 | 8 | 30 | 0.2667 | 30.00\% | 30.00\% | 9.0 | 9.0 | 89\% | 89\% |
| 65 | 5 | 26 | 0.1923 | 40.00\% | 40.00\% | 10.4 | 10.4 | 48\% | 48\% |
| 66 | 7 | 25 | 0.2800 | 30.00\% | 30.00\% | 7.5 | 7.5 | 93\% | 93\% |
| 67 | 2 | 18 | 0.1111 | 30.00\% | 30.00\% | 5.4 | 5.4 | 37\% | 37\% |
| 68 | 9 | 16 | 0.5625 | 30.00\% | 30.00\% | 4.8 | 4.8 | 188\% | 188\% |
| 69 | 2 | 6 | 0.3333 | 30.00\% | 30.00\% | 1.8 | 1.8 | 111\% | 111\% |
| 70 | 2 | 4 | 0.5000 | 100.00\% | 100.00\% | 4.0 | 4.0 | 50\% | 50\% |
| Subtotal | 261 | 1,224 |  |  |  | 276.1 | 276.1 | 95\% | 95\% |
| Other | 3 | 16 | 0.1875 | 100.00\% | 100.00\% | 16.0 | 16.0 | 19\% | 19\% |
| Total | 264 | 1,240 |  |  |  | 292.1 | 292.1 | 90\% | 90\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION RETIREMENT EXPERIENCE OF ACTIVE MEMBERS WITH UNREDUCED SERVICE TOTAL - MEN AND WOMEN

| Plan <br> Year | TABLE 6D |  | 10-YEAR PERIOD ENDING 6/30/2013 <br> Retirement Rate |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending June 30, | Life Years Exposed | Actual <br> Retirements | Expected Retirements | Actual / <br> Expected | $\begin{aligned} & \text { Actual } \\ & \text { (3) / (2) } \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 1,471 | 447 | 527.6 | 85\% | 30.39\% | 35.87\% |
| 2005 | 1,602 | 319 | 637.6 | 50\% | 19.91\% | 39.80\% |
| 2006 | 1,533 | 385 | 518.5 | 74\% | 25.11\% | 33.83\% |
| 2007 | 1,595 | 325 | 640.9 | 51\% | 20.38\% | 40.18\% |
| 2008 | 1,420 | 255 | 468.1 | 54\% | 17.96\% | 32.96\% |
| 2009 | 1,627 | 170 | 648.1 | 26\% | 10.45\% | 39.84\% |
| 2010 | 1,967 | 303 | 747.5 | 41\% | 15.40\% | 38.00\% |
| 2011 | 1,675 | 273 | 474.9 | 57\% | 16.30\% | 28.35\% |
| 2012 | 1,410 | 235 | 410.4 | 57\% | 16.67\% | 29.11\% |
| 2013 | 1,600 | 148 | 629.6 | 24\% | 9.25\% | 39.35\% |
| Total | 15,900 | 2,860 | 5,703.2 | 50\% | 17.99\% | 35.87\% |

*The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 40 .

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION

 RETIREMENT EXPERIENCE OF ACTIVE MEMBERS WITH REDUCED SERVICE TOTAL - MEN AND WOMEN|  | TABLE 7A |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 0 | 17 | 0.0000 | 2.00\% | 2.00\% | 0.3 | 0.3 | 0\% | 0\% |
| 56 | 0 | 22 | 0.0000 | 2.00\% | 2.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 57 | 0 | 20 | 0.0000 | 2.00\% | 2.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 58 | 2 | 24 | 0.0833 | 2.00\% | 2.00\% | 0.5 | 0.5 | 417\% | 417\% |
| 59 | 0 | 17 | 0.0000 | 3.00\% | 3.00\% | 0.5 | 0.5 | 0\% | 0\% |
| 60 | 0 | 11 | 0.0000 | 4.00\% | 4.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 61 | 1 | 12 | 0.0833 | 5.00\% | 5.00\% | 0.6 | 0.6 | 167\% | 167\% |
| 62 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 3 | 123 |  |  |  | 3.2 | 3.2 | 93\% | 93\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 3 | 123 |  |  |  | 3.2 | 3.2 | 93\% | 93\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION RETIREMENT EXPERIENCE OF ACTIVE MEMBERS WITH REDUCED SERVICE TOTAL - MEN AND WOMEN

|  | TABLE 7A |  |  | Assumed | bability | 10-YEAR PERIOD ENDING 6/30/2013Expected Retirements Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 0 | 52 | 0.0000 | 2.00\% | 2.00\% | 1.0 | 1.0 | 0\% | 0\% |
| 56 | 1 | 48 | 0.0208 | 2.00\% | 2.00\% | 1.0 | 1.0 | 104\% | 104\% |
| 57 | 0 | 42 | 0.0000 | 2.00\% | 2.00\% | 0.8 | 0.8 | 0\% | 0\% |
| 58 | 2 | 44 | 0.0455 | 2.00\% | 2.00\% | 0.9 | 0.9 | 227\% | 227\% |
| 59 | 1 | 32 | 0.0313 | 3.00\% | 3.00\% | 1.0 | 1.0 | 104\% | 104\% |
| 60 | 0 | 25 | 0.0000 | 4.00\% | 4.00\% | 1.0 | 1.0 | 0\% | 0\% |
| 61 | 1 | 25 | 0.0400 | 5.00\% | 5.00\% | 1.3 | 1.3 | 80\% | 80\% |
| 62 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 5 | 268 |  |  |  | 6.9 | 6.9 | 72\% | 72\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 5 | 268 |  |  |  | 6.9 | 6.9 | 72\% | 72\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION RETIREMENT EXPERIENCE OF ACTIVE MEMBERS WITH REDUCED SERVICE TOTAL - MEN AND WOMEN

| Plan Year Ending June 30, | TABLE 7B <br> Life Years Exposed | Actual <br> Retirements | Expected Retirements | 10-YEAR PERIOD ENDING 6/30/2013 <br> Retirement Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / Expected | $\begin{gathered} \text { Actual } \\ (3) /(2) \\ \hline \end{gathered}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 21 | 1 | 0.6 | 182\% | 4.76\% | 2.62\% |
| 2005 | 19 | 0 | 0.5 | 0\% | 0.00\% | 2.47\% |
| 2006 | 26 | 0 | 0.7 | 0\% | 0.00\% | 2.69\% |
| 2007 | 25 | 1 | 0.7 | 152\% | 4.00\% | 2.64\% |
| 2008 | 26 | 0 | 0.7 | 0\% | 0.00\% | 2.58\% |
| 2009 | 28 | 0 | 0.7 | 0\% | 0.00\% | 2.39\% |
| 2010 | 39 | 0 | 1.0 | 0\% | 0.00\% | 2.46\% |
| 2011 | 29 | 0 | 0.7 | 0\% | 0.00\% | 2.45\% |
| 2012 | 30 | 1 | 0.8 | 120\% | 3.33\% | 2.77\% |
| 2013 | 25 | 2 | 0.7 | 286\% | 8.00\% | 2.80\% |
| Total | 268 | 5 | 6.9 | 72\% | 1.87\% | 2.58\% |

*The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 40 .

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION
ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

|  | TABLE 8C |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013 <br> Expected Deaths <br> Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total Exposed | $\begin{gathered} \text { Actual Rate } \\ (2) /(3) \\ \hline \end{gathered}$ | Expected | Proposed | $\begin{gathered} \hline \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { Proposed } \\ (3) \times(6) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 2 | 0.00000 | 0.050\% | 0.050\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 4 | 0.00000 | 0.050\% | 0.050\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 35 | 0.00000 | 0.050\% | 0.050\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 101 | 0.00000 | 0.050\% | 0.050\% | 0.1 | 0.1 | 0\% | 0\% |
| 25 | 0 | 192 | 0.00000 | 0.040\% | 0.040\% | 0.1 | 0.1 | 0\% | 0\% |
| 26 | 0 | 321 | 0.00000 | 0.050\% | 0.050\% | 0.2 | 0.2 | 0\% | 0\% |
| 27 | 0 | 445 | 0.00000 | 0.050\% | 0.050\% | 0.2 | 0.2 | 0\% | 0\% |
| 28 | 0 | 517 | 0.00000 | 0.050\% | 0.050\% | 0.3 | 0.3 | 0\% | 0\% |
| 29 | 0 | 608 | 0.00000 | 0.050\% | 0.050\% | 0.3 | 0.3 | 0\% | 0\% |
| 30 | 0 | 683 | 0.00000 | 0.050\% | 0.050\% | 0.3 | 0.3 | 0\% | 0\% |
| 31 | 0 | 735 | 0.00000 | 0.050\% | 0.050\% | 0.4 | 0.4 | 0\% | 0\% |
| 32 | 0 | 840 | 0.00000 | 0.050\% | 0.050\% | 0.4 | 0.4 | 0\% | 0\% |
| 33 | 2 | 923 | 0.00217 | 0.050\% | 0.050\% | 0.5 | 0.5 | 437\% | 437\% |
| 34 | 1 | 952 | 0.00105 | 0.050\% | 0.050\% | 0.5 | 0.5 | 212\% | 212\% |
| 35 | 0 | 955 | 0.00000 | 0.049\% | 0.049\% | 0.5 | 0.5 | 0\% | 0\% |
| 36 | 0 | 946 | 0.00000 | 0.059\% | 0.059\% | 0.6 | 0.6 | 0\% | 0\% |
| 37 | 0 | 936 | 0.00000 | 0.069\% | 0.069\% | 0.6 | 0.6 | 0\% | 0\% |
| 38 | 1 | 1,000 | 0.00100 | 0.079\% | 0.079\% | 0.8 | 0.8 | 126\% | 126\% |
| 39 | 1 | 1,044 | 0.00096 | 0.089\% | 0.089\% | 0.9 | 0.9 | 107\% | 107\% |
| 40 | 1 | 1,090 | 0.00092 | 0.099\% | 0.099\% | 1.1 | 1.1 | 93\% | 93\% |
| 41 | 1 | 1,079 | 0.00093 | 0.109\% | 0.109\% | 1.2 | 1.2 | 85\% | 85\% |
| 42 | 0 | 1,046 | 0.00000 | 0.119\% | 0.119\% | 1.2 | 1.2 | 0\% | 0\% |
| 43 | 2 | 999 | 0.00200 | 0.129\% | 0.129\% | 1.3 | 1.3 | 156\% | 156\% |
| 44 | 1 | 980 | 0.00102 | 0.138\% | 0.138\% | 1.4 | 1.4 | 74\% | 74\% |
| 45 | 1 | 1,065 | 0.00094 | 0.149\% | 0.149\% | 1.6 | 1.6 | 63\% | 63\% |
| 46 | 1 | 1,054 | 0.00095 | 0.158\% | 0.158\% | 1.7 | 1.7 | 60\% | 60\% |
| 47 | 0 | 1,067 | 0.00000 | 0.168\% | 0.168\% | 1.8 | 1.8 | 0\% | 0\% |
| 48 | 1 | 1,028 | 0.00097 | 0.178\% | 0.178\% | 1.8 | 1.8 | 55\% | 55\% |
| 49 | 1 | 946 | 0.00106 | 0.188\% | 0.188\% | 1.8 | 1.8 | 56\% | 56\% |
| 50 | 0 | 883 | 0.00000 | 0.197\% | 0.197\% | 1.7 | 1.7 | 0\% | 0\% |
| 51 | 0 | 772 | 0.00000 | 0.207\% | 0.207\% | 1.6 | 1.6 | 0\% | 0\% |
| 52 | 3 | 674 | 0.00445 | 0.217\% | 0.217\% | 1.5 | 1.5 | 205\% | 205\% |
| 53 | 2 | 590 | 0.00339 | 0.227\% | 0.227\% | 1.3 | 1.3 | 149\% | 149\% |
| 54 | 1 | 541 | 0.00185 | 0.237\% | 0.237\% | 1.3 | 1.3 | 78\% | 78\% |
| 55 | 1 | 542 | 0.00185 | 0.247\% | 0.247\% | 1.3 | 1.3 | 75\% | 75\% |
| 56 | 0 | 544 | 0.00000 | 0.257\% | 0.257\% | 1.4 | 1.4 | 0\% | 0\% |
| 57 | 0 | 511 | 0.00000 | 0.268\% | 0.268\% | 1.4 | 1.4 | 0\% | 0\% |
| 58 | 3 | 455 | 0.00659 | 0.278\% | 0.278\% | 1.3 | 1.3 | 237\% | 237\% |
| 59 | 1 | 382 | 0.00262 | 0.288\% | 0.288\% | 1.1 | 1.1 | 91\% | 91\% |
| 60 | 0 | 293 | 0.00000 | 0.298\% | 0.298\% | 0.9 | 0.9 | 0\% | 0\% |
| 61 | 0 | 226 | 0.00000 | 0.317\% | 0.317\% | 0.7 | 0.7 | 0\% | 0\% |
| 62 | 0 | 187 | 0.00000 | 0.338\% | 0.338\% | 0.6 | 0.6 | 0\% | 0\% |
| 63 | 0 | 140 | 0.00000 | 0.358\% | 0.358\% | 0.5 | 0.5 | 0\% | 0\% |
| 64 | 1 | 95 | 0.01053 | 0.379\% | 0.379\% | 0.4 | 0.4 | 278\% | 278\% |
| 65 | 0 | 2 | 0.00000 | 0.400\% | 0.400\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Total | 26 | 28,430 |  |  |  | 38.3 | 38.3 | 68\% | 68\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

|  | TABLE 8C GROUPED |  |  | $\begin{array}{ccc} & \text { 4-YEAR PERIOD ENDING 6/30/2013 } \\ \text { Expected Deaths } & \\ \text { Actual/Expected }\end{array}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total Exposed | Actual Rate $(2) /(3)$ | Expected <br> (7) / (3) | Proposed $(\mathbf{8}) /(3)$ | Expected | Proposed | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 142 | 0.00000 | 0.050\% | 0.050\% | 0.1 | 0.1 | 0\% | 0\% |
| 25-29 | 0 | 2,083 | 0.00000 | 0.049\% | 0.049\% | 1.0 | 1.0 | 0\% | 0\% |
| 30-34 | 3 | 4,133 | 0.00073 | 0.050\% | 0.050\% | 2.0 | 2.0 | 146\% | 146\% |
| 35-39 | 2 | 4,881 | 0.00041 | 0.070\% | 0.070\% | 3.4 | 3.4 | 59\% | 59\% |
| 40-44 | 5 | 5,194 | 0.00096 | 0.118\% | 0.118\% | 6.1 | 6.1 | 81\% | 81\% |
| 45-49 | 4 | 5,160 | 0.00078 | 0.168\% | 0.168\% | 8.7 | 8.7 | 46\% | 46\% |
| 50-54 | 6 | 3,460 | 0.00173 | 0.214\% | 0.214\% | 7.4 | 7.4 | 81\% | 81\% |
| 55-59 | 5 | 2,434 | 0.00205 | 0.266\% | 0.266\% | 6.5 | 6.5 | 77\% | 77\% |
| 60-64 | 1 | 941 | 0.00106 | 0.328\% | 0.328\% | 3.1 | 3.1 | 32\% | 32\% |
| 65-69 | 0 | 2 | 0.00000 | 0.400\% | 0.400\% | 0.0 | 0.0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 26 | 28,430 |  |  |  | 38.3 | 38.3 | 68\% | 68\% |


|  | TABLE 8C |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | $\begin{gathered} \text { Actual Rate } \\ (2) /(3) \\ \hline \end{gathered}$ | Expected | Proposed | Expected (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 28 | 0.00000 | 0.050\% | 0.050\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 74 | 0.00000 | 0.050\% | 0.050\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 167 | 0.00000 | 0.050\% | 0.050\% | 0.1 | 0.1 | 0\% | 0\% |
| 23 | 0 | 327 | 0.00000 | 0.050\% | 0.050\% | 0.2 | 0.2 | 0\% | 0\% |
| 24 | 0 | 520 | 0.00000 | 0.050\% | 0.050\% | 0.3 | 0.3 | 0\% | 0\% |
| 25 | 0 | 737 | 0.00000 | 0.040\% | 0.040\% | 0.3 | 0.3 | 0\% | 0\% |
| 26 | 1 | 974 | 0.00103 | 0.050\% | 0.050\% | 0.5 | 0.5 | 207\% | 207\% |
| 27 | 0 | 1,220 | 0.00000 | 0.050\% | 0.050\% | 0.6 | 0.6 | 0\% | 0\% |
| 28 | 0 | 1,400 | 0.00000 | 0.050\% | 0.050\% | 0.7 | 0.7 | 0\% | 0\% |
| 29 | 1 | 1,564 | 0.00064 | 0.050\% | 0.050\% | 0.8 | 0.8 | 129\% | 129\% |
| 30 | 0 | 1,705 | 0.00000 | 0.050\% | 0.050\% | 0.8 | 0.8 | 0\% | 0\% |
| 31 | 0 | 1,857 | 0.00000 | 0.050\% | 0.050\% | 0.9 | 0.9 | 0\% | 0\% |
| 32 | 0 | 2,040 | 0.00000 | 0.049\% | 0.049\% | 1.0 | 1.0 | 0\% | 0\% |
| 33 | 4 | 2,177 | 0.00184 | 0.050\% | 0.050\% | 1.1 | 1.1 | 371\% | 371\% |
| 34 | 2 | 2,269 | 0.00088 | 0.050\% | 0.050\% | 1.1 | 1.1 | 178\% | 178\% |
| 35 | 1 | 2,324 | 0.00043 | 0.049\% | 0.049\% | 1.2 | 1.2 | 87\% | 87\% |
| 36 | 0 | 2,345 | 0.00000 | 0.059\% | 0.059\% | 1.4 | 1.4 | 0\% | 0\% |
| 37 | 0 | 2,375 | 0.00000 | 0.069\% | 0.069\% | 1.6 | 1.6 | 0\% | 0\% |
| 38 | 2 | 2,492 | 0.00080 | 0.079\% | 0.079\% | 2.0 | 2.0 | 101\% | 101\% |
| 39 | 1 | 2,626 | 0.00038 | 0.089\% | 0.089\% | 2.3 | 2.3 | 43\% | 43\% |
| 40 | 3 | 2,732 | 0.00110 | 0.099\% | 0.099\% | 2.7 | 2.7 | 111\% | 111\% |
| 41 | 4 | 2,813 | 0.00142 | 0.109\% | 0.109\% | 3.1 | 3.1 | 131\% | 131\% |
| 42 | 1 | 2,810 | 0.00036 | 0.119\% | 0.119\% | 3.3 | 3.3 | 30\% | 30\% |
| 43 | 5 | 2,779 | 0.00180 | 0.129\% | 0.129\% | 3.6 | 3.6 | 140\% | 140\% |
| 44 | 3 | 2,690 | 0.00112 | 0.138\% | 0.138\% | 3.7 | 3.7 | 81\% | 81\% |
| 45 | 2 | 2,616 | 0.00076 | 0.148\% | 0.148\% | 3.9 | 3.9 | 52\% | 52\% |
| 46 | 3 | 2,531 | 0.00119 | 0.158\% | 0.158\% | 4.0 | 4.0 | 75\% | 75\% |
| 47 | 1 | 2,453 | 0.00041 | 0.168\% | 0.168\% | 4.1 | 4.1 | 24\% | 24\% |
| 48 | 3 | 2,418 | 0.00124 | 0.178\% | 0.178\% | 4.3 | 4.3 | 70\% | 70\% |
| 49 | 2 | 2,426 | 0.00082 | 0.188\% | 0.188\% | 4.6 | 4.6 | 44\% | 44\% |
| 50 | 5 | 2,382 | 0.00210 | 0.198\% | 0.198\% | 4.7 | 4.7 | 106\% | 106\% |
| 51 | 7 | 2,270 | 0.00308 | 0.208\% | 0.208\% | 4.7 | 4.7 | 148\% | 148\% |
| 52 | 11 | 2,098 | 0.00524 | 0.218\% | 0.218\% | 4.6 | 4.6 | 241\% | 241\% |
| 53 | 5 | 1,902 | 0.00263 | 0.228\% | 0.228\% | 4.3 | 4.3 | 115\% | 115\% |
| 54 | 4 | 1,712 | 0.00234 | 0.238\% | 0.238\% | 4.1 | 4.1 | 98\% | 98\% |
| 55 | 9 | 1,555 | 0.00579 | 0.248\% | 0.248\% | 3.9 | 3.9 | 233\% | 233\% |
| 56 | 5 | 1,381 | 0.00362 | 0.258\% | 0.258\% | 3.6 | 3.6 | 140\% | 140\% |
| 57 | 3 | 1,227 | 0.00244 | 0.268\% | 0.268\% | 3.3 | 3.3 | 91\% | 91\% |
| 58 | 7 | 1,037 | 0.00675 | 0.278\% | 0.278\% | 2.9 | 2.9 | 242\% | 242\% |
| 59 | 5 | 844 | 0.00592 | 0.288\% | 0.288\% | 2.4 | 2.4 | 206\% | 206\% |
| 60 | 2 | 656 | 0.00305 | 0.298\% | 0.298\% | 2.0 | 2.0 | 102\% | 102\% |
| 61 | 1 | 497 | 0.00201 | 0.318\% | 0.318\% | 1.6 | 1.6 | 63\% | 63\% |
| 62 | 5 | 400 | 0.01250 | 0.338\% | 0.338\% | 1.4 | 1.4 | 370\% | 370\% |
| 63 | 0 | 266 | 0.00000 | 0.357\% | 0.357\% | 0.9 | 0.9 | 0\% | 0\% |
| 64 | 3 | 179 | 0.01676 | 0.378\% | 0.378\% | 0.7 | 0.7 | 444\% | 444\% |
| 65 | 1 | 10 | 0.10000 | 0.400\% | 0.400\% | 0.0 | 0.0 | 2500\% | 2500\% |
| 66 | 0 | 8 | 0.00000 | 0.420\% | 0.420\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 6 | 0.00000 | 0.480\% | 0.480\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 6 | 0.00000 | 0.520\% | 0.520\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 3 | 0.00000 | 0.560\% | 0.560\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 72 | 1 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 73 | 1 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 3 | 0.00000 | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Total | 114 | 73,931 |  |  |  | 99.2 | 99.2 | 115\% | 115\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

|  | TABLE 8C GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total Exposed | Actual Rate $(2) /(3)$ | Expected <br> (7) / (3) | Proposed (8) / (3) | Expected | Proposed | Expected (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 1,116 | 0.00000 | 0.050\% | 0.050\% | 0.6 | 0.6 | 0\% | 0\% |
| 25-29 | 2 | 5,895 | 0.00034 | 0.048\% | 0.048\% | 2.9 | 2.9 | 70\% | 70\% |
| 30-34 | 6 | 10,048 | 0.00060 | 0.050\% | 0.050\% | 5.0 | 5.0 | 121\% | 121\% |
| 35-39 | 4 | 12,162 | 0.00033 | 0.070\% | 0.070\% | 8.5 | 8.5 | 47\% | 47\% |
| 40-44 | 16 | 13,824 | 0.00116 | 0.119\% | 0.119\% | 16.4 | 16.4 | 98\% | 98\% |
| 45-49 | 11 | 12,444 | 0.00088 | 0.168\% | 0.168\% | 20.9 | 20.9 | 53\% | 53\% |
| 50-54 | 32 | 10,364 | 0.00309 | 0.216\% | 0.216\% | 22.4 | 22.4 | 143\% | 143\% |
| 55-59 | 29 | 6,044 | 0.00480 | 0.265\% | 0.265\% | 16.0 | 16.0 | 181\% | 181\% |
| 60-64 | 11 | 1,998 | 0.00551 | 0.326\% | 0.326\% | 6.5 | 6.5 | 169\% | 169\% |
| 65-69 | 1 | 33 | 0.03030 | 0.456\% | 0.456\% | 0.2 | 0.2 | 665\% | 665\% |
| 70-74 | 2 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 3 | 0.00000 | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Total | 114 | 73,931 |  |  |  | 99.2 | 99.2 | 115\% | 115\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Plan <br> Year | TABLE 8D |  |  | 10-YEAR PER | Mortality Rate |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending June 30, | Life Years Exposed | Actual Deaths | Expected Deaths | Actual / Expected | $\begin{aligned} & \text { Actual } \\ & \text { (3) / (2) } \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 7,502 | 28 | 10.6 | 264\% | 0.373\% | 0.141\% |
| 2005 | 7,329 | 13 | 10.2 | 128\% | 0.177\% | 0.139\% |
| 2006 | 7,577 | 12 | 10.2 | 117\% | 0.158\% | 0.135\% |
| 2007 | 7,717 | 9 | 10.0 | 90\% | 0.117\% | 0.130\% |
| 2008 | 7,720 | 10 | 9.9 | 101\% | 0.130\% | 0.128\% |
| 2009 | 7,656 | 16 | 9.8 | 163\% | 0.209\% | 0.128\% |
| 2010 | 7,548 | 7 | 9.9 | 71\% | 0.093\% | 0.131\% |
| 2011 | 7,142 | 8 | 9.6 | 83\% | 0.112\% | 0.134\% |
| 2012 | 6,853 | 8 | 9.3 | 86\% | 0.117\% | 0.136\% |
| 2013 | 6,887 | 3 | 9.3 | 32\% | 0.044\% | 0.136\% |
| Total | 73,931 | 114 | 98.8 | 115\% | 0.154\% | 0.134\% |

*The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 20 and over 75.

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION
ACCIDENTAL MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| TABLE 9A |  |  |  | Assumed Probability $\begin{gathered}\text { 4-YEAR PERIOD ENDING 6/30/2013 } \\ \text { Expected Deaths }\end{gathered}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | $\begin{gathered} \text { Actual Rate } \\ (2) /(3) \\ \hline \end{gathered}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { Proposed } \\ (3) \times(6) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { Proposed } \\ (2) /(\mathbf{8}) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.010\% | 0.010\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 1 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 3 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 33 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 97 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 187 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 26 | 0 | 314 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 437 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 28 | 0 | 512 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 29 | 0 | 601 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 30 | 0 | 676 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 31 | 0 | 725 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 32 | 0 | 833 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 33 | 0 | 916 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 34 | 0 | 948 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 35 | 0 | 952 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 36 | 0 | 942 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 37 | 0 | 932 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 38 | 0 | 994 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 39 | 0 | 1,042 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 40 | 0 | 1,087 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 41 | 0 | 1,077 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 42 | 1 | 1,044 | 0.00096 | 0.010\% | 0.010\% | 0.1 | 0.1 | 958\% | 958\% |
| 43 | 0 | 999 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 44 | 0 | 980 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 45 | 0 | 1,065 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 46 | 0 | 1,053 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 47 | 1 | 1,065 | 0.00094 | 0.010\% | 0.010\% | 0.1 | 0.1 | 939\% | 939\% |
| 48 | 0 | 1,027 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 49 | 0 | 944 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 50 | 0 | 882 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 51 | 0 | 771 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 52 | 0 | 674 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 53 | 0 | 590 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 54 | 0 | 541 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 55 | 0 | 542 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 56 | 0 | 544 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 57 | 0 | 511 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 58 | 0 | 455 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 59 | 0 | 382 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 60 | 0 | 293 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 61 | 0 | 226 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 62 | 0 | 187 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 63 | 0 | 140 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 64 | 0 | 95 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 0 | 2 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.010\% | 0.010\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.010\% | 0.010\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.010\% | 0.010\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.010\% | 0.010\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Total | 2 | 28,321 |  |  |  | 2.8 | 2.8 | 71\% | 71\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION

 ACCIDENTAL MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN|  | TABLE 9A GROUPED |  |  | Assumed Probability $\quad \begin{gathered}\text { 4-YEAR PERIOD ENDING 6/30/2013 } \\ \text { Expected Deaths }\end{gathered} \quad \begin{gathered}\text { Actual/Expected }\end{gathered}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total Exposed | Actual Rate $(2) /(3)$ | Expected $(7) /(3)$ | Proposed (8) / (3) | Expected | Proposed | Expected (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 134 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 25-29 | 0 | 2,051 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 30-34 | 0 | 4,098 | 0.00000 | 0.010\% | 0.010\% | 0.4 | 0.4 | 0\% | 0\% |
| 35-39 | 0 | 4,862 | 0.00000 | 0.010\% | 0.010\% | 0.5 | 0.5 | 0\% | 0\% |
| 40-44 | 1 | 5,187 | 0.00019 | 0.010\% | 0.010\% | 0.5 | 0.5 | 193\% | 193\% |
| 45-49 | 1 | 5,154 | 0.00019 | 0.010\% | 0.010\% | 0.5 | 0.5 | 194\% | 194\% |
| 50-54 | 0 | 3,458 | 0.00000 | 0.010\% | 0.010\% | 0.3 | 0.3 | 0\% | 0\% |
| 55-59 | 0 | 2,434 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 60-64 | 0 | 941 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 65-69 | 0 | 2 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 2 | 28,321 |  |  |  | 2.8 | 2.8 | 71\% | 71\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION

ACCIDENTAL MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

|  | TABLE 9A |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | $\begin{gathered} \hline \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { Proposed } \\ (3) \times(6) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 27 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 71 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 151 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 306 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 491 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 701 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 26 | 0 | 938 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 27 | 0 | 1,180 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 28 | 0 | 1,361 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 29 | 0 | 1,524 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 30 | 0 | 1,663 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 31 | 0 | 1,815 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 32 | 0 | 2,007 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 33 | 0 | 2,145 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 34 | 0 | 2,239 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 35 | 0 | 2,299 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 36 | 0 | 2,318 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 37 | 1 | 2,355 | 0.00042 | 0.010\% | 0.010\% | 0.2 | 0.2 | 425\% | 425\% |
| 38 | 0 | 2,471 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 39 | 0 | 2,609 | 0.00000 | 0.010\% | 0.010\% | 0.3 | 0.3 | 0\% | 0\% |
| 40 | 1 | 2,711 | 0.00037 | 0.010\% | 0.010\% | 0.3 | 0.3 | 369\% | 369\% |
| 41 | 0 | 2,797 | 0.00000 | 0.010\% | 0.010\% | 0.3 | 0.3 | 0\% | 0\% |
| 42 | 2 | 2,795 | 0.00072 | 0.010\% | 0.010\% | 0.3 | 0.3 | 716\% | 716\% |
| 43 | 0 | 2,770 | 0.00000 | 0.010\% | 0.010\% | 0.3 | 0.3 | 0\% | 0\% |
| 44 | 0 | 2,682 | 0.00000 | 0.010\% | 0.010\% | 0.3 | 0.3 | 0\% | 0\% |
| 45 | 0 | 2,609 | 0.00000 | 0.010\% | 0.010\% | 0.3 | 0.3 | 0\% | 0\% |
| 46 | 0 | 2,522 | 0.00000 | 0.010\% | 0.010\% | 0.3 | 0.3 | 0\% | 0\% |
| 47 | 1 | 2,443 | 0.00041 | 0.010\% | 0.010\% | 0.2 | 0.2 | 409\% | 409\% |
| 48 | 0 | 2,413 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 49 | 0 | 2,423 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 50 | 0 | 2,379 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 51 | 0 | 2,267 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 52 | 0 | 2,098 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 53 | 0 | 1,902 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 54 | 0 | 1,712 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 55 | 0 | 1,555 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 56 | 1 | 1,381 | 0.00072 | 0.010\% | 0.010\% | 0.1 | 0.1 | 724\% | 724\% |
| 57 | 0 | 1,227 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 58 | 0 | 1,037 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 59 | 0 | 844 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 60 | 0 | 656 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 61 | 0 | 497 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 62 | 0 | 400 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 63 | 0 | 266 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 64 | 0 | 179 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 0 | 10 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 8 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 6 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 6 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 3 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 3 |  |  | 0.000\% | 0 | 0 | 0\% | 0\% |
| Total | 6 | 73,272 |  |  |  | 7.3 | 7.3 | 82\% | 82\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION

 ACCIDENTAL MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN|  | TABLE 9A GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected $(7) /(3)$ | $\begin{gathered} \hline \text { Proposed } \\ (8) /(3) \\ \hline \end{gathered}$ | Expected | Proposed | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 1,046 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 25-29 | 0 | 5,704 | 0.00000 | 0.010\% | 0.010\% | 0.6 | 0.6 | 0\% | 0\% |
| 30-34 | 0 | 9,869 | 0.00000 | 0.010\% | 0.010\% | 1.0 | 1.0 | 0\% | 0\% |
| 35-39 | 1 | 12,052 | 0.00008 | 0.010\% | 0.010\% | 1.2 | 1.2 | 83\% | 83\% |
| 40-44 | 3 | 13,755 | 0.00022 | 0.010\% | 0.010\% | 1.4 | 1.4 | 218\% | 218\% |
| 45-49 | 1 | 12,410 | 0.00008 | 0.010\% | 0.010\% | 1.2 | 1.2 | 81\% | 81\% |
| 50-54 | 0 | 10,358 | 0.00000 | 0.010\% | 0.010\% | 1.0 | 1.0 | 0\% | 0\% |
| 55-59 | 1 | 6,044 | 0.00017 | 0.010\% | 0.010\% | 0.6 | 0.6 | 165\% | 165\% |
| 60-64 | 0 | 1,998 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 65-69 | 0 | 33 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 3 | 0.00000 | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Total | 6 | 73,272 |  |  |  | 7.3 | 7.3 | 82\% | 82\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION ACCIDENTAL MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| $\begin{aligned} & \text { Plan } \\ & \text { Year } \end{aligned}$ | TABLE 9B |  |  | 10-YEAR PER | Mortality Rate |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending June 30, | Life Years <br> Exposed | Actual <br> Deaths | Expected <br> Deaths | Actual / Expected | $\begin{aligned} & \text { Actual } \\ & (3) /(2) \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 7,371 | 1 | 0.7 | 138\% | 0.014\% | 0.010\% |
| 2005 | 7,201 | 1 | 0.7 | 142\% | 0.014\% | 0.010\% |
| 2006 | 7,466 | 2 | 0.7 | 273\% | 0.027\% | 0.010\% |
| 2007 | 7,634 | 0 | 0.7 | 0\% | 0.000\% | 0.010\% |
| 2008 | 7,652 | 0 | 0.8 | 0\% | 0.000\% | 0.010\% |
| 2009 | 7,627 | 0 | 0.7 | 0\% | 0.000\% | 0.010\% |
| 2010 | 7,518 | 2 | 0.7 | 273\% | 0.027\% | 0.010\% |
| 2011 | 7,112 | 0 | 0.7 | 0\% | 0.000\% | 0.010\% |
| 2012 | 6,827 | 0 | 0.7 | 0\% | 0.000\% | 0.010\% |
| 2013 | 6,864 | 0 | 0.7 | 0\% | 0.000\% | 0.010\% |
| Total | 73,272 | 6 | 7.2 | 84\% | 0.008\% | 0.010\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Age | TABLE 10C |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Disabilities | Total Exposed <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \begin{array}{c} \text { (2) } /(\mathbf{3}) \\ \hline \end{array} \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ \text { (3) x (5) } \\ \hline \end{gathered}$ | Proposed $(3) \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 24 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 27 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 28 | 0 | 2 | 0.0000 | 0.16\% | 0.12\% | 0.0 | 0.0 | 0\% | 0\% |
| 29 | 0 | 18 | 0.0000 | 0.18\% | 0.14\% | 0.0 | 0.0 | 0\% | 0\% |
| 30 | 0 | 51 | 0.0000 | 0.20\% | 0.15\% | 0.1 | 0.1 | 0\% | 0\% |
| 31 | 0 | 109 | 0.0000 | 0.22\% | 0.17\% | 0.2 | 0.2 | 0\% | 0\% |
| 32 | 0 | 152 | 0.0000 | 0.24\% | 0.18\% | 0.4 | 0.3 | 0\% | 0\% |
| 33 | 0 | 196 | 0.0000 | 0.26\% | 0.20\% | 0.5 | 0.4 | 0\% | 0\% |
| 34 | 0 | 202 | 0.0000 | 0.28\% | 0.21\% | 0.6 | 0.4 | 0\% | 0\% |
| 35 | 1 | 241 | 0.0041 | 0.30\% | 0.23\% | 0.7 | 0.5 | 138\% | 184\% |
| 36 | 0 | 326 | 0.0000 | 0.32\% | 0.24\% | 1.0 | 0.8 | 0\% | 0\% |
| 37 | 0 | 434 | 0.0000 | 0.34\% | 0.26\% | 1.5 | 1.1 | 0\% | 0\% |
| 38 | 1 | 532 | 0.0019 | 0.36\% | 0.27\% | 1.9 | 1.4 | 52\% | 70\% |
| 39 | 2 | 559 | 0.0036 | 0.38\% | 0.29\% | 2.1 | 1.6 | 94\% | 126\% |
| 40 | 1 | 577 | 0.0017 | 0.40\% | 0.30\% | 2.3 | 1.7 | 43\% | 58\% |
| 41 | 1 | 588 | 0.0017 | 0.42\% | 0.32\% | 2.5 | 1.9 | 40\% | 54\% |
| 42 | 1 | 660 | 0.0015 | 0.44\% | 0.33\% | 2.9 | 2.2 | 34\% | 46\% |
| 43 | 4 | 756 | 0.0053 | 0.46\% | 0.35\% | 3.5 | 2.6 | 115\% | 153\% |
| 44 | 4 | 836 | 0.0048 | 0.48\% | 0.36\% | 4.0 | 3.0 | 100\% | 133\% |
| 45 | 0 | 931 | 0.0000 | 0.50\% | 0.38\% | 4.7 | 3.5 | 0\% | 0\% |
| 46 | 5 | 929 | 0.0054 | 0.52\% | 0.39\% | 4.8 | 3.6 | 104\% | 138\% |
| 47 | 4 | 877 | 0.0046 | 0.54\% | 0.41\% | 4.7 | 3.6 | 84\% | 113\% |
| 48 | 2 | 821 | 0.0024 | 0.56\% | 0.42\% | 4.6 | 3.4 | 44\% | 58\% |
| 49 | 5 | 750 | 0.0067 | 0.58\% | 0.44\% | 4.4 | 3.3 | 115\% | 153\% |
| 50 | 2 | 685 | 0.0029 | 0.60\% | 0.45\% | 4.1 | 3.1 | 49\% | 65\% |
| 51 | 0 | 611 | 0.0000 | 0.62\% | 0.47\% | 3.8 | 2.8 | 0\% | 0\% |
| 52 | 1 | 552 | 0.0018 | 0.64\% | 0.48\% | 3.5 | 2.6 | 28\% | 38\% |
| 53 | 3 | 608 | 0.0049 | 0.66\% | 0.50\% | 4.0 | 3.0 | 75\% | 100\% |
| 54 | 1 | 614 | 0.0016 | 0.68\% | 0.51\% | 4.2 | 3.1 | 24\% | 32\% |
| 55 | 4 | 615 | 0.0065 | 0.70\% | 0.53\% | 4.3 | 3.2 | 93\% | 124\% |
| 56 | 2 | 571 | 0.0035 | 0.72\% | 0.54\% | 4.1 | 3.1 | 49\% | 65\% |
| 57 | 1 | 488 | 0.0020 | 0.74\% | 0.56\% | 3.6 | 2.7 | 28\% | 37\% |
| 58 | 1 | 386 | 0.0026 | 0.76\% | 0.57\% | 2.9 | 2.2 | 34\% | 45\% |
| 59 | 2 | 319 | 0.0063 | 0.78\% | 0.59\% | 2.5 | 1.9 | 80\% | 107\% |
| 60 | 2 | 257 | 0.0078 | 0.80\% | 0.60\% | 2.1 | 1.5 | 97\% | 130\% |
| 61 | 2 | 217 | 0.0092 | 0.82\% | 0.62\% | 1.8 | 1.3 | 112\% | 150\% |
| 62 | 0 | 186 | 0.0000 | 0.84\% | 0.63\% | 1.6 | 1.2 | 0\% | 0\% |
| 63 | 2 | 108 | 0.0185 | 0.86\% | 0.65\% | 0.9 | 0.7 | 215\% | 287\% |
| 64 | 0 | 77 | 0.0000 | 0.88\% | 0.66\% | 0.7 | 0.5 | 0\% | 0\% |
| 65 | 2 | 2 | 1.0000 | 0.90\% | 0.68\% | 0.0 | 0.0 | 11111\% | 14815\% |
| 66 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 2 | 0.0000 | 0.96\% | 0.72\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 1 | 3 | 0.3333 | 0.98\% | 0.74\% | 0.0 | 0.0 | 3401\% | 4535\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 57 | 16,848 |  |  |  | 91.6 | 68.7 | 62\% | 83\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

|  | TABLE 10C GROUPED |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2011 <br> Expected Disabilities $\qquad$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } /(\mathbf{3}) \\ & \hline \end{aligned}$ | Expected $(7) /(3)$ | Proposed $(8) /(3)$ | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 25-29 | 0 | 20 | 0.0000 | 0.18\% | 0.13\% | 0.0 | 0.0 | 0\% | 0\% |
| 30-34 | 0 | 710 | 0.0000 | 0.25\% | 0.19\% | 1.8 | 1.3 | 0\% | 0\% |
| 35-39 | 4 | 2,092 | 0.0019 | 0.35\% | 0.26\% | 7.3 | 5.5 | 55\% | 73\% |
| 40-44 | 11 | 3,417 | 0.0032 | 0.44\% | 0.33\% | 15.2 | 11.4 | 73\% | 97\% |
| 45-49 | 16 | 4,308 | 0.0037 | 0.54\% | 0.40\% | 23.2 | 17.4 | 69\% | 92\% |
| 50-54 | 7 | 3,070 | 0.0023 | 0.64\% | 0.48\% | 19.6 | 14.7 | 36\% | 48\% |
| 55-59 | 10 | 2,379 | 0.0042 | 0.73\% | 0.55\% | 17.4 | 13.1 | 57\% | 76\% |
| 60-64 | 6 | 845 | 0.0071 | 0.83\% | 0.62\% | 7.0 | 5.3 | 86\% | 114\% |
| 65-69 | 3 | 7 | 0.4286 | 0.95\% | 0.71\% | 0.1 | 0.0 | 4505\% | 6006\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 57 | 16,848 |  |  |  | 91.6 | 68.7 | 62\% | 83\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Age | TABLE 10C |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(\mathbf{3}) \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 24 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 27 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 28 | 0 | 2 | 0.0000 | 0.16\% | 0.12\% | 0.0 | 0.0 | 0\% | 0\% |
| 29 | 0 | 23 | 0.0000 | 0.18\% | 0.14\% | 0.0 | 0.0 | 0\% | 0\% |
| 30 | 0 | 59 | 0.0000 | 0.20\% | 0.15\% | 0.1 | 0.1 | 0\% | 0\% |
| 31 | 0 | 136 | 0.0000 | 0.22\% | 0.17\% | 0.3 | 0.2 | 0\% | 0\% |
| 32 | 1 | 226 | 0.0044 | 0.24\% | 0.18\% | 0.5 | 0.4 | 184\% | 246\% |
| 33 | 1 | 337 | 0.0030 | 0.26\% | 0.20\% | 0.9 | 0.7 | 114\% | 152\% |
| 34 | 0 | 410 | 0.0000 | 0.28\% | 0.21\% | 1.1 | 0.9 | 0\% | 0\% |
| 35 | 2 | 500 | 0.0040 | 0.30\% | 0.23\% | 1.5 | 1.1 | 133\% | 178\% |
| 36 | 3 | 613 | 0.0049 | 0.32\% | 0.24\% | 2.0 | 1.5 | 153\% | 204\% |
| 37 | 0 | 774 | 0.0000 | 0.34\% | 0.26\% | 2.6 | 2.0 | 0\% | 0\% |
| 38 | 3 | 952 | 0.0032 | 0.36\% | 0.27\% | 3.4 | 2.6 | 88\% | 117\% |
| 39 | 2 | 1,131 | 0.0018 | 0.38\% | 0.29\% | 4.3 | 3.2 | 47\% | 62\% |
| 40 | 1 | 1,275 | 0.0008 | 0.40\% | 0.30\% | 5.1 | 3.8 | 20\% | 26\% |
| 41 | 5 | 1,382 | 0.0036 | 0.42\% | 0.32\% | 5.8 | 4.4 | 86\% | 115\% |
| 42 | 3 | 1,497 | 0.0020 | 0.44\% | 0.33\% | 6.6 | 4.9 | 46\% | 61\% |
| 43 | 6 | 1,599 | 0.0038 | 0.46\% | 0.35\% | 7.4 | 5.5 | 82\% | 109\% |
| 44 | 4 | 1,642 | 0.0024 | 0.48\% | 0.36\% | 7.9 | 5.9 | 51\% | 68\% |
| 45 | 3 | 1,690 | 0.0018 | 0.50\% | 0.38\% | 8.5 | 6.3 | 36\% | 47\% |
| 46 | 8 | 1,657 | 0.0048 | 0.52\% | 0.39\% | 8.6 | 6.5 | 93\% | 124\% |
| 47 | 6 | 1,580 | 0.0038 | 0.54\% | 0.41\% | 8.5 | 6.4 | 70\% | 94\% |
| 48 | 6 | 1,603 | 0.0037 | 0.56\% | 0.42\% | 9.0 | 6.7 | 67\% | 89\% |
| 49 | 6 | 1,709 | 0.0035 | 0.58\% | 0.44\% | 9.9 | 7.4 | 61\% | 81\% |
| 50 | 6 | 1,726 | 0.0035 | 0.60\% | 0.45\% | 10.4 | 7.8 | 58\% | 77\% |
| 51 | 3 | 1,677 | 0.0018 | 0.62\% | 0.47\% | 10.4 | 7.8 | 29\% | 38\% |
| 52 | 7 | 1,581 | 0.0044 | 0.64\% | 0.48\% | 10.1 | 7.6 | 69\% | 92\% |
| 53 | 8 | 1,488 | 0.0054 | 0.66\% | 0.50\% | 9.8 | 7.4 | 81\% | 109\% |
| 54 | 2 | 1,358 | 0.0015 | 0.68\% | 0.51\% | 9.2 | 6.9 | 22\% | 29\% |
| 55 | 6 | 1,240 | 0.0048 | 0.70\% | 0.53\% | 8.7 | 6.5 | 69\% | 92\% |
| 56 | 6 | 1,101 | 0.0054 | 0.72\% | 0.54\% | 7.9 | 5.9 | 76\% | 101\% |
| 57 | 4 | 959 | 0.0042 | 0.74\% | 0.56\% | 7.1 | 5.3 | 56\% | 75\% |
| 58 | 4 | 766 | 0.0052 | 0.76\% | 0.57\% | 5.8 | 4.4 | 69\% | 92\% |
| 59 | 4 | 620 | 0.0065 | 0.78\% | 0.59\% | 4.8 | 3.6 | 83\% | 110\% |
| 60 | 4 | 482 | 0.0083 | 0.80\% | 0.60\% | 3.9 | 2.9 | 104\% | 138\% |
| 61 | 4 | 370 | 0.0108 | 0.82\% | 0.62\% | 3.0 | 2.3 | 132\% | 176\% |
| 62 | 0 | 302 | 0.0000 | 0.84\% | 0.63\% | 2.5 | 1.9 | 0\% | 0\% |
| 63 | 2 | 188 | 0.0106 | 0.86\% | 0.65\% | 1.6 | 1.2 | 124\% | 165\% |
| 64 | 0 | 132 | 0.0000 | 0.88\% | 0.66\% | 1.2 | 0.9 | 0\% | 0\% |
| 65 | 2 | 9 | 0.2222 | 0.90\% | 0.68\% | 0.1 | 0.1 | 2469\% | 3292\% |
| 66 | 0 | 8 | 0.0000 | 0.92\% | 0.69\% | 0.1 | 0.1 | 0\% | 0\% |
| 67 | 0 | 6 | 0.0000 | 0.94\% | 0.71\% | 0.1 | 0.0 | 0\% | 0\% |
| 68 | 0 | 6 | 0.0000 | 0.96\% | 0.72\% | 0.1 | 0.0 | 0\% | 0\% |
| 69 | 1 | 3 | 0.3333 | 0.98\% | 0.74\% | 0.0 | 0.0 | 3401\% | 4535\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 123 | 34,819 |  |  |  | 190.9 | 143.1 | 64\% | 86\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION

 ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN|  | TABLE 10C GROUPED |  |  | Assumed Probability $\quad \begin{gathered}\text { 8-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered} \quad \begin{aligned} & \text { Actual/Expected }\end{aligned}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | Actual Rate $(2) /(3)$ | Expected <br> (7) / (3) | Proposed $(8) /(3)$ | Expected | Proposed | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 25-29 | 0 | 25 | 0.0000 | 0.18\% | 0.13\% | 0.0 | 0.0 | 0\% | 0\% |
| 30-34 | 2 | 1,168 | 0.0017 | 0.26\% | 0.19\% | 3.0 | 2.2 | 67\% | 89\% |
| 35-39 | 10 | 3,970 | 0.0025 | 0.35\% | 0.26\% | 13.8 | 10.4 | 72\% | 96\% |
| 40-44 | 19 | 7,395 | 0.0026 | 0.44\% | 0.33\% | 32.7 | 24.5 | 58\% | 77\% |
| 45-49 | 29 | 8,239 | 0.0035 | 0.54\% | 0.40\% | 44.5 | 33.4 | 65\% | 87\% |
| 50-54 | 26 | 7,830 | 0.0033 | 0.64\% | 0.48\% | 49.9 | 37.4 | 52\% | 69\% |
| 55-59 | 24 | 4,686 | 0.0051 | 0.73\% | 0.55\% | 34.4 | 25.8 | 70\% | 93\% |
| 60-64 | 10 | 1,474 | 0.0068 | 0.83\% | 0.62\% | 12.2 | 9.2 | 82\% | 109\% |
| 65-69 | 3 | 32 | 0.0938 | 0.93\% | 0.70\% | 0.3 | 0.2 | 1007\% | 1342\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 123 | 34,819 |  |  |  | 190.9 | 143.1 | 64\% | 86\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Plan Year Ending June 30, | TABLE 10D |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Disability Rate |  |
|  | Life Years Exposed | Actual Disabilities | Expected Disabilities | Actual / Expected | $\begin{aligned} & \hline \text { Actual } \\ & \text { (3) / (2) } \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 4,861 | 24 | 22.2 | 108\% | 0.49\% | 0.46\% |
| 2005 | 4,686 | 11 | 21.3 | 52\% | 0.23\% | 0.45\% |
| 2006 | 4,311 | 19 | 19.9 | 95\% | 0.44\% | 0.46\% |
| 2007 | 4,113 | 12 | 18.9 | 64\% | 0.29\% | 0.46\% |
| 2008 | 3,830 | 15 | 17.7 | 85\% | 0.39\% | 0.46\% |
| 2009 | 3,947 | 10 | 18.1 | 55\% | 0.25\% | 0.46\% |
| 2010 | 4,563 | 17 | 20.1 | 84\% | 0.37\% | 0.44\% |
| 2011 | 4,508 | 15 | 19.9 | 75\% | 0.33\% | 0.44\% |
| 2012 | 4,179 | 16 | 18.7 | 86\% | 0.38\% | 0.45\% |
| 2013 | 3,930 | 17 | 17.8 | 95\% | 0.43\% | 0.45\% |
| Total | 42,928 | 156 | 194.6 | 80\% | 0.36\% | 0.45\% |


| Age | TABLE 11A |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ \text { (3) } \times(5) \\ \hline \end{gathered}$ | Proposed $(3) \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 2 | 0.0000 | 0.10\% | 0.06\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 15 | 0.0000 | 0.10\% | 0.06\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 58 | 0.0000 | 0.10\% | 0.06\% | 0.1 | 0.0 | 0\% | 0\% |
| 23 | 0 | 139 | 0.0000 | 0.10\% | 0.06\% | 0.1 | 0.1 | 0\% | 0\% |
| 24 | 0 | 259 | 0.0000 | 0.10\% | 0.06\% | 0.3 | 0.2 | 0\% | 0\% |
| 25 | 0 | 388 | 0.0000 | 0.10\% | 0.06\% | 0.4 | 0.2 | 0\% | 0\% |
| 26 | 0 | 454 | 0.0000 | 0.11\% | 0.06\% | 0.5 | 0.3 | 0\% | 0\% |
| 27 | 0 | 535 | 0.0000 | 0.12\% | 0.06\% | 0.6 | 0.3 | 0\% | 0\% |
| 28 | 0 | 594 | 0.0000 | 0.13\% | 0.06\% | 0.8 | 0.4 | 0\% | 0\% |
| 29 | 0 | 661 | 0.0000 | 0.14\% | 0.06\% | 0.9 | 0.4 | 0\% | 0\% |
| 30 | 0 | 767 | 0.0000 | 0.15\% | 0.07\% | 1.2 | 0.5 | 0\% | 0\% |
| 31 | 2 | 852 | 0.0023 | 0.16\% | 0.08\% | 1.4 | 0.7 | 147\% | 292\% |
| 32 | 1 | 893 | 0.0011 | 0.17\% | 0.09\% | 1.5 | 0.8 | 66\% | 122\% |
| 33 | 1 | 920 | 0.0011 | 0.18\% | 0.11\% | 1.7 | 1.0 | 60\% | 103\% |
| 34 | 1 | 892 | 0.0011 | 0.19\% | 0.12\% | 1.7 | 1.1 | 59\% | 93\% |
| 35 | 1 | 881 | 0.0011 | 0.20\% | 0.14\% | 1.8 | 1.2 | 57\% | 82\% |
| 36 | 4 | 950 | 0.0042 | 0.21\% | 0.16\% | 2.0 | 1.5 | 201\% | 265\% |
| 37 | 2 | 1,011 | 0.0020 | 0.22\% | 0.18\% | 2.2 | 1.8 | 90\% | 109\% |
| 38 | 4 | 1,050 | 0.0038 | 0.23\% | 0.21\% | 2.4 | 2.2 | 166\% | 185\% |
| 39 | 2 | 1,042 | 0.0019 | 0.24\% | 0.23\% | 2.5 | 2.4 | 80\% | 82\% |
| 40 | 4 | 1,012 | 0.0040 | 0.25\% | 0.26\% | 2.5 | 2.6 | 158\% | 151\% |
| 41 | 3 | 998 | 0.0030 | 0.26\% | 0.29\% | 2.6 | 2.9 | 116\% | 103\% |
| 42 | 4 | 999 | 0.0040 | 0.27\% | 0.33\% | 2.7 | 3.3 | 148\% | 123\% |
| 43 | 8 | 1,088 | 0.0074 | 0.28\% | 0.36\% | 3.0 | 3.9 | 263\% | 203\% |
| 44 | 5 | 1,117 | 0.0045 | 0.29\% | 0.40\% | 3.2 | 4.5 | 154\% | 112\% |
| 45 | 4 | 1,145 | 0.0035 | 0.30\% | 0.44\% | 3.4 | 5.0 | 116\% | 79\% |
| 46 | 8 | 1,116 | 0.0072 | 0.34\% | 0.48\% | 3.8 | 5.4 | 211\% | 148\% |
| 47 | 9 | 1,016 | 0.0089 | 0.38\% | 0.53\% | 3.9 | 5.4 | 233\% | 168\% |
| 48 | 6 | 942 | 0.0064 | 0.42\% | 0.58\% | 4.0 | 5.4 | 152\% | 111\% |
| 49 | 4 | 854 | 0.0047 | 0.46\% | 0.62\% | 3.9 | 5.3 | 102\% | 75\% |
| 50 | 6 | 766 | 0.0078 | 0.50\% | 0.68\% | 3.8 | 5.2 | 157\% | 116\% |
| 51 | 7 | 677 | 0.0103 | 0.56\% | 0.73\% | 3.8 | 4.9 | 185\% | 142\% |
| 52 | 7 | 605 | 0.0116 | 0.62\% | 0.79\% | 3.8 | 4.8 | 187\% | 147\% |
| 53 | 4 | 646 | 0.0062 | 0.68\% | 0.84\% | 4.4 | 5.5 | 91\% | 73\% |
| 54 | 5 | 652 | 0.0077 | 0.74\% | 0.90\% | 4.8 | 5.9 | 104\% | 85\% |
| 55 | 2 | 641 | 0.0031 | 0.80\% | 0.97\% | 5.1 | 6.2 | 39\% | 32\% |
| 56 | 9 | 582 | 0.0155 | 0.88\% | 1.03\% | 5.1 | 6.0 | 176\% | 150\% |
| 57 | 8 | 495 | 0.0162 | 0.96\% | 1.10\% | 4.8 | 5.4 | 168\% | 147\% |
| 58 | 12 | 398 | 0.0302 | 1.04\% | 1.17\% | 4.1 | 4.7 | 290\% | 258\% |
| 59 | 5 | 331 | 0.0151 | 1.12\% | 1.24\% | 3.7 | 4.1 | 135\% | 122\% |
| 60 | 3 | 267 | 0.0112 | 1.20\% | 1.31\% | 3.2 | 3.5 | 94\% | 85\% |
| 61 | 5 | 223 | 0.0224 | 1.30\% | 1.36\% | 2.9 | 3.0 | 172\% | 165\% |
| 62 | 2 | 185 | 0.0108 | 1.40\% | 1.44\% | 2.6 | 2.7 | 77\% | 75\% |
| 63 | 1 | 106 | 0.0094 | 1.50\% | 1.52\% | 1.6 | 1.6 | 63\% | 62\% |
| 64 | 1 | 77 | 0.0130 | 1.60\% | 1.60\% | 1.2 | 1.2 | 81\% | 81\% |
| 65 | 0 | 2 | 0.0000 | 1.70\% | 1.68\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 1.82\% | 1.76\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 1.94\% | 1.84\% | 0 | 0 | 0\% | 0\% |
| 68 | 1 | 2 | 0.5000 | 2.06\% | 1.92\% | 0.0 | 0.0 | 2427\% | 2604\% |
| 69 | 0 | 3 | 0.0000 | 2.18\% | 2.00\% | 0.1 | 0.1 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 2.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 2.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 2.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 2.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 2.00\% | 0 | 0 | 0\% | 0\% |
| Other | 1 | 1 | 1.0000 | 0.00\% | 2.00\% | 0 | 0.0 | 0\% | 5000\% |
| Total | 152 | 29,309 |  |  |  | 110.2 | 123.8 | 138\% | 123\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION aCcidental disability experience of active members WOMEN

| Age | TABLE 11B |  |  | Assumed Probability $\begin{gathered}\text { 4-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.10\% | 0.12\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.10\% | 0.12\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.10\% | 0.12\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 1 | 0.0000 | 0.10\% | 0.12\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 2 | 0.0000 | 0.10\% | 0.12\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 5 | 0.0000 | 0.10\% | 0.12\% | 0.0 | 0.0 | 0\% | 0\% |
| 26 | 0 | 5 | 0.0000 | 0.11\% | 0.13\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 7 | 0.0000 | 0.12\% | 0.14\% | 0.0 | 0.0 | 0\% | 0\% |
| 28 | 0 | 10 | 0.0000 | 0.13\% | 0.16\% | 0.0 | 0.0 | 0\% | 0\% |
| 29 | 0 | 13 | 0.0000 | 0.14\% | 0.17\% | 0.0 | 0.0 | 0\% | 0\% |
| 30 | 0 | 16 | 0.0000 | 0.15\% | 0.18\% | 0.0 | 0.0 | 0\% | 0\% |
| 31 | 0 | 19 | 0.0000 | 0.16\% | 0.19\% | 0.0 | 0.0 | 0\% | 0\% |
| 32 | 0 | 19 | 0.0000 | 0.17\% | 0.20\% | 0.0 | 0.0 | 0\% | 0\% |
| 33 | 0 | 21 | 0.0000 | 0.18\% | 0.22\% | 0.0 | 0.0 | 0\% | 0\% |
| 34 | 0 | 23 | 0.0000 | 0.19\% | 0.23\% | 0.0 | 0.1 | 0\% | 0\% |
| 35 | 0 | 27 | 0.0000 | 0.20\% | 0.24\% | 0.1 | 0.1 | 0\% | 0\% |
| 36 | 0 | 26 | 0.0000 | 0.21\% | 0.25\% | 0.1 | 0.1 | 0\% | 0\% |
| 37 | 0 | 25 | 0.0000 | 0.22\% | 0.26\% | 0.1 | 0.1 | 0\% | 0\% |
| 38 | 0 | 30 | 0.0000 | 0.23\% | 0.28\% | 0.1 | 0.1 | 0\% | 0\% |
| 39 | 0 | 29 | 0.0000 | 0.24\% | 0.29\% | 0.1 | 0.1 | 0\% | 0\% |
| 40 | 0 | 27 | 0.0000 | 0.25\% | 0.30\% | 0.1 | 0.1 | 0\% | 0\% |
| 41 | 0 | 25 | 0.0000 | 0.26\% | 0.31\% | 0.1 | 0.1 | 0\% | 0\% |
| 42 | 0 | 29 | 0.0000 | 0.27\% | 0.32\% | 0.1 | 0.1 | 0\% | 0\% |
| 43 | 0 | 27 | 0.0000 | 0.28\% | 0.34\% | 0.1 | 0.1 | 0\% | 0\% |
| 44 | 0 | 26 | 0.0000 | 0.29\% | 0.35\% | 0.1 | 0.1 | 0\% | 0\% |
| 45 | 0 | 34 | 0.0000 | 0.30\% | 0.36\% | 0.1 | 0.1 | 0\% | 0\% |
| 46 | 1 | 28 | 0.0357 | 0.34\% | 0.41\% | 0.1 | 0.1 | 1050\% | 875\% |
| 47 | 0 | 32 | 0.0000 | 0.38\% | 0.46\% | 0.1 | 0.1 | 0\% | 0\% |
| 48 | 1 | 34 | 0.0294 | 0.42\% | 0.50\% | 0.1 | 0.2 | 700\% | 584\% |
| 49 | 0 | 30 | 0.0000 | 0.46\% | 0.55\% | 0.1 | 0.2 | 0\% | 0\% |
| 50 | 0 | 30 | 0.0000 | 0.50\% | 0.60\% | 0.2 | 0.2 | 0\% | 0\% |
| 51 | 0 | 27 | 0.0000 | 0.56\% | 0.67\% | 0.2 | 0.2 | 0\% | 0\% |
| 52 | 0 | 21 | 0.0000 | 0.62\% | 0.74\% | 0.1 | 0.2 | 0\% | 0\% |
| 53 | 0 | 20 | 0.0000 | 0.68\% | 0.82\% | 0.1 | 0.2 | 0\% | 0\% |
| 54 | 0 | 17 | 0.0000 | 0.74\% | 0.89\% | 0.1 | 0.2 | 0\% | 0\% |
| 55 | 0 | 16 | 0.0000 | 0.80\% | 0.96\% | 0.1 | 0.2 | 0\% | 0\% |
| 56 | 1 | 16 | 0.0625 | 0.88\% | 1.06\% | 0.1 | 0.2 | 710\% | 592\% |
| 57 | 0 | 12 | 0.0000 | 0.96\% | 1.15\% | 0.1 | 0.1 | 0\% | 0\% |
| 58 | 0 | 7 | 0.0000 | 1.04\% | 1.25\% | 0.1 | 0.1 | 0\% | 0\% |
| 59 | 0 | 6 | 0.0000 | 1.12\% | 1.34\% | 0.1 | 0.1 | 0\% | 0\% |
| 60 | 0 | 5 | 0.0000 | 1.20\% | 1.44\% | 0.1 | 0.1 | 0\% | 0\% |
| 61 | 0 | 2 | 0.0000 | 1.30\% | 1.56\% | 0.0 | 0.0 | 0\% | 0\% |
| 62 | 1 | 3 | 0.3333 | 1.40\% | 1.68\% | 0.0 | 0.1 | 2381\% | 1984\% |
| 63 | 0 | 3 | 0.0000 | 1.50\% | 1.80\% | 0.0 | 0.1 | 0\% | 0\% |
| 64 | 0 | 2 | 0.0000 | 1.60\% | 1.92\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 1.70\% | 2.04\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 1.82\% | 2.18\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 1.94\% | 2.33\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 2.06\% | 2.47\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 2.18\% | 2.62\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 4 | 757 |  |  |  | 2.9 | 3.5 | 138\% | 115\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION aCcidental disability experience of active members MEN AND WOMEN

|  | TABLE 11C |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 2 | 0.0000 | 0.10\% | 0.06\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 15 | 0.0000 | 0.10\% | 0.06\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 58 | 0.0000 | 0.10\% | 0.06\% | 0.1 | 0.0 | 0\% | 0\% |
| 23 | 0 | 140 | 0.0000 | 0.10\% | 0.06\% | 0.1 | 0.1 | 0\% | 0\% |
| 24 | 0 | 261 | 0.0000 | 0.10\% | 0.06\% | 0.3 | 0.2 | 0\% | 0\% |
| 25 | 0 | 393 | 0.0000 | 0.10\% | 0.06\% | 0.4 | 0.2 | 0\% | 0\% |
| 26 | 0 | 459 | 0.0000 | 0.11\% | 0.06\% | 0.5 | 0.3 | 0\% | 0\% |
| 27 | 0 | 542 | 0.0000 | 0.12\% | 0.06\% | 0.7 | 0.3 | 0\% | 0\% |
| 28 | 0 | 604 | 0.0000 | 0.13\% | 0.06\% | 0.8 | 0.4 | 0\% | 0\% |
| 29 | 0 | 674 | 0.0000 | 0.14\% | 0.07\% | 0.9 | 0.4 | 0\% | 0\% |
| 30 | 0 | 783 | 0.0000 | 0.15\% | 0.07\% | 1.2 | 0.6 | 0\% | 0\% |
| 31 | 2 | 871 | 0.0023 | 0.16\% | 0.08\% | 1.4 | 0.7 | 144\% | 277\% |
| 32 | 1 | 912 | 0.0011 | 0.17\% | 0.09\% | 1.6 | 0.9 | 64\% | 117\% |
| 33 | 1 | 941 | 0.0011 | 0.18\% | 0.11\% | 1.7 | 1.0 | 59\% | 99\% |
| 34 | 1 | 915 | 0.0011 | 0.19\% | 0.12\% | 1.7 | 1.1 | 58\% | 89\% |
| 35 | 1 | 908 | 0.0011 | 0.20\% | 0.14\% | 1.8 | 1.3 | 55\% | 78\% |
| 36 | 4 | 976 | 0.0041 | 0.21\% | 0.16\% | 2.0 | 1.6 | 195\% | 254\% |
| 37 | 2 | 1,036 | 0.0019 | 0.22\% | 0.18\% | 2.3 | 1.9 | 88\% | 105\% |
| 38 | 4 | 1,080 | 0.0037 | 0.23\% | 0.21\% | 2.5 | 2.2 | 161\% | 178\% |
| 39 | 2 | 1,071 | 0.0019 | 0.24\% | 0.23\% | 2.6 | 2.5 | 78\% | 80\% |
| 40 | 4 | 1,039 | 0.0038 | 0.25\% | 0.26\% | 2.6 | 2.7 | 154\% | 146\% |
| 41 | 3 | 1,023 | 0.0029 | 0.26\% | 0.29\% | 2.7 | 3.0 | 113\% | 100\% |
| 42 | 4 | 1,028 | 0.0039 | 0.27\% | 0.33\% | 2.8 | 3.4 | 144\% | 119\% |
| 43 | 8 | 1,115 | 0.0072 | 0.28\% | 0.36\% | 3.1 | 4.0 | 256\% | 198\% |
| 44 | 5 | 1,143 | 0.0044 | 0.29\% | 0.40\% | 3.3 | 4.6 | 151\% | 109\% |
| 45 | 4 | 1,179 | 0.0034 | 0.30\% | 0.44\% | 3.5 | 5.2 | 113\% | 77\% |
| 46 | 9 | 1,144 | 0.0079 | 0.34\% | 0.48\% | 3.9 | 5.5 | 231\% | 163\% |
| 47 | 9 | 1,048 | 0.0086 | 0.38\% | 0.53\% | 4.0 | 5.5 | 226\% | 163\% |
| 48 | 7 | 976 | 0.0072 | 0.42\% | 0.57\% | 4.1 | 5.6 | 171\% | 125\% |
| 49 | 4 | 884 | 0.0045 | 0.46\% | 0.62\% | 4.1 | 5.5 | 98\% | 73\% |
| 50 | 6 | 796 | 0.0075 | 0.50\% | 0.67\% | 4.0 | 5.4 | 151\% | 112\% |
| 51 | 7 | 704 | 0.0099 | 0.56\% | 0.73\% | 3.9 | 5.1 | 178\% | 137\% |
| 52 | 7 | 626 | 0.0112 | 0.62\% | 0.78\% | 3.9 | 4.9 | 180\% | 143\% |
| 53 | 4 | 666 | 0.0060 | 0.68\% | 0.84\% | 4.5 | 5.6 | 88\% | 71\% |
| 54 | 5 | 669 | 0.0075 | 0.74\% | 0.90\% | 5.0 | 6.0 | 101\% | 83\% |
| 55 | 2 | 657 | 0.0030 | 0.80\% | 0.97\% | 5.3 | 6.4 | 38\% | 31\% |
| 56 | 10 | 598 | 0.0167 | 0.88\% | 1.03\% | 5.3 | 6.2 | 190\% | 162\% |
| 57 | 8 | 507 | 0.0158 | 0.96\% | 1.10\% | 4.9 | 5.6 | 164\% | 143\% |
| 58 | 12 | 405 | 0.0296 | 1.04\% | 1.17\% | 4.2 | 4.7 | 285\% | 253\% |
| 59 | 5 | 337 | 0.0148 | 1.12\% | 1.24\% | 3.8 | 4.2 | 132\% | 119\% |
| 60 | 3 | 272 | 0.0110 | 1.20\% | 1.32\% | 3.3 | 3.6 | 92\% | 84\% |
| 61 | 5 | 225 | 0.0222 | 1.30\% | 1.36\% | 2.9 | 3.1 | 171\% | 163\% |
| 62 | 3 | 188 | 0.0160 | 1.40\% | 1.44\% | 2.6 | 2.7 | 114\% | 111\% |
| 63 | 1 | 109 | 0.0092 | 1.50\% | 1.53\% | 1.6 | 1.7 | 61\% | 60\% |
| 64 | 1 | 79 | 0.0127 | 1.60\% | 1.61\% | 1.3 | 1.3 | 79\% | 79\% |
| 65 | 0 | 2 | 0.0000 | 1.70\% | 1.68\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 68 | 1 | 2 | 0.5000 | 2.06\% | 1.92\% | 0.0 | 0.0 | 2427\% | 2604\% |
| 69 | 0 | 3 | 0.0000 | 2.18\% | 2.00\% | 0.1 | 0.1 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 1 | 1 | 1.0000 | 0.00\% | 2.00\% | 0 | 0.0 | 0\% | 5000\% |
| Total | 156 | 30,066 |  |  |  | 113.1 | 127.3 | 138\% | 123\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN

| Age | TABLE 11A GROUPED |  |  | Assumed Probability $\quad \begin{gathered}\text { 4-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } /(\mathbf{3}) \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 473 | 0.0000 | 0.10\% | 0.06\% | 0.5 | 0.3 | 0\% | 0\% |
| 25-29 | 0 | 2,632 | 0.0000 | 0.12\% | 0.06\% | 3.2 | 1.6 | 0\% | 0\% |
| 30-34 | 5 | 4,324 | 0.0012 | 0.17\% | 0.09\% | 7.4 | 4.1 | 68\% | 122\% |
| 35-39 | 13 | 4,934 | 0.0026 | 0.22\% | 0.19\% | 10.9 | 9.1 | 119\% | 142\% |
| 40-44 | 24 | 5,214 | 0.0046 | 0.27\% | 0.33\% | 14.1 | 17.3 | 170\% | 139\% |
| 45-49 | 31 | 5,073 | 0.0061 | 0.37\% | 0.52\% | 19.0 | 26.6 | 163\% | 117\% |
| 50-54 | 29 | 3,346 | 0.0087 | 0.62\% | 0.78\% | 20.6 | 26.2 | 141\% | 111\% |
| 55-59 | 36 | 2,447 | 0.0147 | 0.93\% | 1.08\% | 22.8 | 26.4 | 158\% | 136\% |
| 60-64 | 12 | 858 | 0.0140 | 1.34\% | 1.40\% | 11.5 | 12.1 | 104\% | 100\% |
| 65-69 | 1 | 7 | 0.1429 | 2.01\% | 1.89\% | 0.1 | 0.1 | 711\% | 758\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 1 | 1 | 1.0000 | 0.00\% | 2.00\% | 0 | 0.0 | 0\% | 5000\% |
| Total | 152 | 29,309 |  |  |  | 110.2 | 123.8 | 138\% | 123\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

| Age | TABLE 11B GROUPED |  |  | Assumed Probability $\quad \begin{gathered}\text { 4-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered} \sim$ Actual/Expected |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2)/(3) } \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | $\begin{gathered} \text { Proposed } \\ (8) /(3) \\ \hline \end{gathered}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 3 | 0.0000 | 0.10\% | 0.12\% | 0.0 | 0.0 | 0\% | 0\% |
| 25-29 | 0 | 40 | 0.0000 | 0.13\% | 0.15\% | 0.1 | 0.1 | 0\% | 0\% |
| 30-34 | 0 | 98 | 0.0000 | 0.17\% | 0.21\% | 0.2 | 0.2 | 0\% | 0\% |
| 35-39 | 0 | 137 | 0.0000 | 0.22\% | 0.26\% | 0.3 | 0.4 | 0\% | 0\% |
| 40-44 | 0 | 134 | 0.0000 | 0.27\% | 0.32\% | 0.4 | 0.4 | 0\% | 0\% |
| 45-49 | 2 | 158 | 0.0127 | 0.38\% | 0.46\% | 0.6 | 0.7 | 334\% | 278\% |
| 50-54 | 0 | 115 | 0.0000 | 0.60\% | 0.72\% | 0.7 | 0.8 | 0\% | 0\% |
| 55-59 | 1 | 57 | 0.0175 | 0.92\% | 1.10\% | 0.5 | 0.6 | 191\% | 159\% |
| 60-64 | 1 | 15 | 0.0667 | 1.37\% | 1.64\% | 0.2 | 0.2 | 488\% | 407\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 4 | 757 |  |  |  | 2.9 | 3.5 | 138\% | 115\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

|  | TABLE 11C GROUPED |  |  | Assumed Probability $\quad \begin{gathered}\text { 4-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered} \quad$ Actual/Expected |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | $\begin{gathered} \text { Proposed } \\ (8) /(3) \\ \hline \end{gathered}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 476 | 0.0000 | 0.10\% | 0.06\% | 0.5 | 0.3 | 0\% | 0\% |
| 25-29 | 0 | 2,672 | 0.0000 | 0.12\% | 0.06\% | 3.3 | 1.7 | 0\% | 0\% |
| 30-34 | 5 | 4,422 | 0.0011 | 0.17\% | 0.10\% | 7.6 | 4.3 | 66\% | 116\% |
| 35-39 | 13 | 5,071 | 0.0026 | 0.22\% | 0.19\% | 11.2 | 9.5 | 116\% | 137\% |
| 40-44 | 24 | 5,348 | 0.0045 | 0.27\% | 0.33\% | 14.5 | 17.7 | 166\% | 136\% |
| 45-49 | 33 | 5,231 | 0.0063 | 0.37\% | 0.52\% | 19.6 | 27.3 | 169\% | 121\% |
| 50-54 | 29 | 3,461 | 0.0084 | 0.61\% | 0.78\% | 21.3 | 27.1 | 136\% | 107\% |
| 55-59 | 37 | 2,504 | 0.0148 | 0.93\% | 1.08\% | 23.4 | 27.0 | 158\% | 137\% |
| 60-64 | 13 | 873 | 0.0149 | 1.34\% | 1.41\% | 11.7 | 12.3 | 111\% | 106\% |
| 65-69 | 1 | 7 | 0.1429 | 2.01\% | 1.89\% | 0.1 | 0.1 | 711\% | 758\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 1 | 1 | 1.0000 | 0.00\% | 2.00\% | 0 | 0.0 | 0\% | 5000\% |
| Total | 156 | 30,066 |  |  |  | 113.1 | 127.3 | 138\% | 123\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION accidental disability experience of active members MEN

| Age | TABLE 11A |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2)/(3) } \end{aligned}$ | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 28 | 0.0000 | 0.10\% | 0.06\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 73 | 0.0000 | 0.10\% | 0.06\% | 0.1 | 0.0 | 0\% | 0\% |
| 22 | 0 | 166 | 0.0000 | 0.10\% | 0.06\% | 0.2 | 0.1 | 0\% | 0\% |
| 23 | 0 | 313 | 0.0000 | 0.10\% | 0.06\% | 0.3 | 0.2 | 0\% | 0\% |
| 24 | 0 | 496 | 0.0000 | 0.10\% | 0.06\% | 0.5 | 0.3 | 0\% | 0\% |
| 25 | 0 | 678 | 0.0000 | 0.10\% | 0.06\% | 0.7 | 0.4 | 0\% | 0\% |
| 26 | 0 | 845 | 0.0000 | 0.11\% | 0.06\% | 0.9 | 0.5 | 0\% | 0\% |
| 27 | 0 | 1,024 | 0.0000 | 0.12\% | 0.06\% | 1.2 | 0.6 | 0\% | 0\% |
| 28 | 1 | 1,132 | 0.0009 | 0.13\% | 0.06\% | 1.5 | 0.7 | 68\% | 147\% |
| 29 | 0 | 1,233 | 0.0000 | 0.14\% | 0.06\% | 1.7 | 0.8 | 0\% | 0\% |
| 30 | 0 | 1,359 | 0.0000 | 0.15\% | 0.07\% | 2.0 | 1.0 | 0\% | 0\% |
| 31 | 2 | 1,478 | 0.0014 | 0.16\% | 0.08\% | 2.4 | 1.2 | 85\% | 168\% |
| 32 | 1 | 1,609 | 0.0006 | 0.17\% | 0.09\% | 2.7 | 1.5 | 37\% | 68\% |
| 33 | 3 | 1,724 | 0.0017 | 0.18\% | 0.11\% | 3.1 | 1.8 | 97\% | 166\% |
| 34 | 3 | 1,746 | 0.0017 | 0.19\% | 0.12\% | 3.3 | 2.1 | 90\% | 142\% |
| 35 | 1 | 1,754 | 0.0006 | 0.20\% | 0.14\% | 3.5 | 2.4 | 29\% | 41\% |
| 36 | 5 | 1,807 | 0.0028 | 0.21\% | 0.16\% | 3.8 | 2.9 | 132\% | 174\% |
| 37 | 4 | 1,881 | 0.0021 | 0.22\% | 0.18\% | 4.1 | 3.4 | 97\% | 117\% |
| 38 | 6 | 1,970 | 0.0030 | 0.23\% | 0.21\% | 4.5 | 4.1 | 132\% | 148\% |
| 39 | 8 | 2,080 | 0.0038 | 0.24\% | 0.23\% | 5.0 | 4.8 | 160\% | 165\% |
| 40 | 7 | 2,138 | 0.0033 | 0.25\% | 0.26\% | 5.3 | 5.6 | 131\% | 125\% |
| 41 | 6 | 2,197 | 0.0027 | 0.26\% | 0.29\% | 5.7 | 6.4 | 105\% | 93\% |
| 42 | 11 | 2,196 | 0.0050 | 0.27\% | 0.33\% | 5.9 | 7.2 | 186\% | 153\% |
| 43 | 18 | 2,203 | 0.0082 | 0.28\% | 0.36\% | 6.2 | 8.0 | 292\% | 225\% |
| 44 | 14 | 2,150 | 0.0065 | 0.29\% | 0.40\% | 6.2 | 8.6 | 225\% | 162\% |
| 45 | 10 | 2,092 | 0.0048 | 0.30\% | 0.44\% | 6.3 | 9.2 | 159\% | 108\% |
| 46 | 11 | 2,002 | 0.0055 | 0.34\% | 0.48\% | 6.8 | 9.7 | 162\% | 114\% |
| 47 | 14 | 1,855 | 0.0075 | 0.38\% | 0.53\% | 7.0 | 9.8 | 199\% | 143\% |
| 48 | 10 | 1,831 | 0.0055 | 0.42\% | 0.58\% | 7.7 | 10.5 | 130\% | 95\% |
| 49 | 12 | 1,898 | 0.0063 | 0.46\% | 0.62\% | 8.7 | 11.9 | 137\% | 101\% |
| 50 | 13 | 1,884 | 0.0069 | 0.50\% | 0.68\% | 9.4 | 12.7 | 138\% | 102\% |
| 51 | 13 | 1,810 | 0.0072 | 0.56\% | 0.73\% | 10.1 | 13.2 | 128\% | 98\% |
| 52 | 14 | 1,687 | 0.0083 | 0.62\% | 0.79\% | 10.5 | 13.3 | 134\% | 106\% |
| 53 | 9 | 1,572 | 0.0057 | 0.68\% | 0.84\% | 10.7 | 13.3 | 84\% | 68\% |
| 54 | 13 | 1,425 | 0.0091 | 0.74\% | 0.90\% | 10.5 | 12.9 | 123\% | 101\% |
| 55 | 11 | 1,290 | 0.0085 | 0.80\% | 0.97\% | 10.3 | 12.5 | 107\% | 88\% |
| 56 | 22 | 1,133 | 0.0194 | 0.88\% | 1.03\% | 10.0 | 11.7 | 221\% | 188\% |
| 57 | 16 | 984 | 0.0163 | 0.96\% | 1.10\% | 9.4 | 10.8 | 169\% | 148\% |
| 58 | 15 | 791 | 0.0190 | 1.04\% | 1.17\% | 8.2 | 9.2 | 182\% | 162\% |
| 59 | 8 | 635 | 0.0126 | 1.12\% | 1.24\% | 7.1 | 7.9 | 112\% | 102\% |
| 60 | 7 | 495 | 0.0141 | 1.20\% | 1.31\% | 5.9 | 6.5 | 118\% | 108\% |
| 61 | 6 | 377 | 0.0159 | 1.30\% | 1.36\% | 4.9 | 5.1 | 122\% | 117\% |
| 62 | 4 | 303 | 0.0132 | 1.40\% | 1.44\% | 4.2 | 4.4 | 94\% | 92\% |
| 63 | 3 | 188 | 0.0160 | 1.50\% | 1.52\% | 2.8 | 2.9 | 106\% | 105\% |
| 64 | 2 | 133 | 0.0150 | 1.60\% | 1.60\% | 2.1 | 2.1 | 94\% | 94\% |
| 65 | 0 | 9 | 0.0000 | 1.70\% | 1.68\% | 0.2 | 0.2 | 0\% | 0\% |
| 66 | 0 | 7 | 0.0000 | 1.82\% | 1.76\% | 0.1 | 0.1 | 0\% | 0\% |
| 67 | 0 | 6 | 0.0000 | 1.94\% | 1.84\% | 0.1 | 0.1 | 0\% | 0\% |
| 68 | 1 | 6 | 0.1667 | 2.06\% | 1.92\% | 0.1 | 0.1 | 809\% | 868\% |
| 69 | 0 | 3 | 0.0000 | 2.18\% | 2.00\% | 0.1 | 0.1 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 2.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 2.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 2.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 2.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 2.00\% | 0 | 0 | 0\% | 0\% |
| Other | 1 | 3 | 0.3333 | 0.00\% | 2.00\% | 0 | 0.1 | 0\% | 1667\% |
| Total | 305 | 58,699 |  |  |  | 224.5 | 254.8 | 136\% | 120\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION accidental disability experience of active members women

|  | TABLE 11B |  |  | Assumed Probability $\begin{gathered}\text { 8-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed <br> (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.10\% | 0.12\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 1 | 0.0000 | 0.10\% | 0.12\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 1 | 0.0000 | 0.10\% | 0.12\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 4 | 0.0000 | 0.10\% | 0.12\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 7 | 0.0000 | 0.10\% | 0.12\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 14 | 0.0000 | 0.10\% | 0.12\% | 0.0 | 0.0 | 0\% | 0\% |
| 26 | 0 | 19 | 0.0000 | 0.11\% | 0.13\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 22 | 0.0000 | 0.12\% | 0.14\% | 0.0 | 0.0 | 0\% | 0\% |
| 28 | 0 | 26 | 0.0000 | 0.13\% | 0.16\% | 0.0 | 0.0 | 0\% | 0\% |
| 29 | 0 | 28 | 0.0000 | 0.14\% | 0.17\% | 0.0 | 0.0 | 0\% | 0\% |
| 30 | 0 | 31 | 0.0000 | 0.15\% | 0.18\% | 0.0 | 0.1 | 0\% | 0\% |
| 31 | 0 | 37 | 0.0000 | 0.16\% | 0.19\% | 0.1 | 0.1 | 0\% | 0\% |
| 32 | 0 | 41 | 0.0000 | 0.17\% | 0.20\% | 0.1 | 0.1 | 0\% | 0\% |
| 33 | 0 | 41 | 0.0000 | 0.18\% | 0.22\% | 0.1 | 0.1 | 0\% | 0\% |
| 34 | 0 | 48 | 0.0000 | 0.19\% | 0.23\% | 0.1 | 0.1 | 0\% | 0\% |
| 35 | 0 | 50 | 0.0000 | 0.20\% | 0.24\% | 0.1 | 0.1 | 0\% | 0\% |
| 36 | 0 | 49 | 0.0000 | 0.21\% | 0.25\% | 0.1 | 0.1 | 0\% | 0\% |
| 37 | 0 | 47 | 0.0000 | 0.22\% | 0.26\% | 0.1 | 0.1 | 0\% | 0\% |
| 38 | 0 | 55 | 0.0000 | 0.23\% | 0.28\% | 0.1 | 0.2 | 0\% | 0\% |
| 39 | 0 | 53 | 0.0000 | 0.24\% | 0.29\% | 0.1 | 0.2 | 0\% | 0\% |
| 40 | 0 | 55 | 0.0000 | 0.25\% | 0.30\% | 0.1 | 0.2 | 0\% | 0\% |
| 41 | 0 | 63 | 0.0000 | 0.26\% | 0.31\% | 0.2 | 0.2 | 0\% | 0\% |
| 42 | 1 | 61 | 0.0164 | 0.27\% | 0.32\% | 0.2 | 0.2 | 607\% | 506\% |
| 43 | 0 | 60 | 0.0000 | 0.28\% | 0.34\% | 0.2 | 0.2 | 0\% | 0\% |
| 44 | 0 | 62 | 0.0000 | 0.29\% | 0.35\% | 0.2 | 0.2 | 0\% | 0\% |
| 45 | 1 | 67 | 0.0149 | 0.30\% | 0.36\% | 0.2 | 0.2 | 498\% | 415\% |
| 46 | 1 | 61 | 0.0164 | 0.34\% | 0.41\% | 0.2 | 0.2 | 482\% | 402\% |
| 47 | 0 | 62 | 0.0000 | 0.38\% | 0.46\% | 0.2 | 0.3 | 0\% | 0\% |
| 48 | 1 | 59 | 0.0169 | 0.42\% | 0.50\% | 0.2 | 0.3 | 404\% | 336\% |
| 49 | 0 | 53 | 0.0000 | 0.46\% | 0.55\% | 0.2 | 0.3 | 0\% | 0\% |
| 50 | 0 | 51 | 0.0000 | 0.50\% | 0.60\% | 0.3 | 0.3 | 0\% | 0\% |
| 51 | 0 | 47 | 0.0000 | 0.56\% | 0.67\% | 0.3 | 0.3 | 0\% | 0\% |
| 52 | 0 | 42 | 0.0000 | 0.62\% | 0.74\% | 0.3 | 0.3 | 0\% | 0\% |
| 53 | 0 | 35 | 0.0000 | 0.68\% | 0.82\% | 0.2 | 0.3 | 0\% | 0\% |
| 54 | 0 | 28 | 0.0000 | 0.74\% | 0.89\% | 0.2 | 0.2 | 0\% | 0\% |
| 55 | 0 | 22 | 0.0000 | 0.80\% | 0.96\% | 0.2 | 0.2 | 0\% | 0\% |
| 56 | 1 | 22 | 0.0455 | 0.88\% | 1.06\% | 0.2 | 0.2 | 517\% | 430\% |
| 57 | 0 | 16 | 0.0000 | 0.96\% | 1.15\% | 0.2 | 0.2 | 0\% | 0\% |
| 58 | 0 | 12 | 0.0000 | 1.04\% | 1.25\% | 0.1 | 0.1 | 0\% | 0\% |
| 59 | 0 | 12 | 0.0000 | 1.12\% | 1.34\% | 0.1 | 0.2 | 0\% | 0\% |
| 60 | 0 | 8 | 0.0000 | 1.20\% | 1.44\% | 0.1 | 0.1 | 0\% | 0\% |
| 61 | 0 | 6 | 0.0000 | 1.30\% | 1.56\% | 0.1 | 0.1 | 0\% | 0\% |
| 62 | 1 | 5 | 0.2000 | 1.40\% | 1.68\% | 0.1 | 0.1 | 1429\% | 1190\% |
| 63 | 0 | 5 | 0.0000 | 1.50\% | 1.80\% | 0.1 | 0.1 | 0\% | 0\% |
| 64 | 0 | 3 | 0.0000 | 1.60\% | 1.92\% | 0.0 | 0.1 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 1.70\% | 2.04\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 1 | 0.0000 | 1.82\% | 2.18\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 1.94\% | 2.33\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 2.06\% | 2.47\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 2.18\% | 2.62\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 6 | 1,492 |  |  |  | 5.4 | 6.5 | 111\% | 93\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION aCcidental disability experience of active members MEN AND WOMEN

|  | TABLE 11C |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed <br> (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 28 | 0.0000 | 0.10\% | 0.06\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 74 | 0.0000 | 0.10\% | 0.06\% | 0.1 | 0.0 | 0\% | 0\% |
| 22 | 0 | 167 | 0.0000 | 0.10\% | 0.06\% | 0.2 | 0.1 | 0\% | 0\% |
| 23 | 0 | 317 | 0.0000 | 0.10\% | 0.06\% | 0.3 | 0.2 | 0\% | 0\% |
| 24 | 0 | 503 | 0.0000 | 0.10\% | 0.06\% | 0.5 | 0.3 | 0\% | 0\% |
| 25 | 0 | 692 | 0.0000 | 0.10\% | 0.06\% | 0.7 | 0.4 | 0\% | 0\% |
| 26 | 0 | 864 | 0.0000 | 0.11\% | 0.06\% | 1.0 | 0.5 | 0\% | 0\% |
| 27 | 0 | 1,046 | 0.0000 | 0.12\% | 0.06\% | 1.3 | 0.6 | 0\% | 0\% |
| 28 | 1 | 1,158 | 0.0009 | 0.13\% | 0.06\% | 1.5 | 0.7 | 66\% | 138\% |
| 29 | 0 | 1,261 | 0.0000 | 0.14\% | 0.07\% | 1.8 | 0.8 | 0\% | 0\% |
| 30 | 0 | 1,390 | 0.0000 | 0.15\% | 0.07\% | 2.1 | 1.0 | 0\% | 0\% |
| 31 | 2 | 1,515 | 0.0013 | 0.16\% | 0.08\% | 2.4 | 1.3 | 83\% | 159\% |
| 32 | 1 | 1,650 | 0.0006 | 0.17\% | 0.09\% | 2.8 | 1.6 | 36\% | 64\% |
| 33 | 3 | 1,765 | 0.0017 | 0.18\% | 0.11\% | 3.2 | 1.9 | 94\% | 158\% |
| 34 | 3 | 1,794 | 0.0017 | 0.19\% | 0.12\% | 3.4 | 2.2 | 88\% | 135\% |
| 35 | 1 | 1,804 | 0.0006 | 0.20\% | 0.14\% | 3.6 | 2.6 | 28\% | 39\% |
| 36 | 5 | 1,856 | 0.0027 | 0.21\% | 0.16\% | 3.9 | 3.0 | 128\% | 167\% |
| 37 | 4 | 1,928 | 0.0021 | 0.22\% | 0.18\% | 4.2 | 3.5 | 94\% | 113\% |
| 38 | 6 | 2,025 | 0.0030 | 0.23\% | 0.21\% | 4.7 | 4.2 | 129\% | 143\% |
| 39 | 8 | 2,133 | 0.0038 | 0.24\% | 0.23\% | 5.1 | 5.0 | 156\% | 160\% |
| 40 | 7 | 2,193 | 0.0032 | 0.25\% | 0.26\% | 5.5 | 5.8 | 128\% | 121\% |
| 41 | 6 | 2,260 | 0.0027 | 0.26\% | 0.29\% | 5.9 | 6.6 | 102\% | 90\% |
| 42 | 12 | 2,257 | 0.0053 | 0.27\% | 0.33\% | 6.1 | 7.4 | 197\% | 163\% |
| 43 | 18 | 2,263 | 0.0080 | 0.28\% | 0.36\% | 6.3 | 8.2 | 284\% | 220\% |
| 44 | 14 | 2,212 | 0.0063 | 0.29\% | 0.40\% | 6.4 | 8.8 | 218\% | 159\% |
| 45 | 11 | 2,159 | 0.0051 | 0.30\% | 0.44\% | 6.5 | 9.5 | 170\% | 116\% |
| 46 | 12 | 2,063 | 0.0058 | 0.34\% | 0.48\% | 7.0 | 9.9 | 171\% | 121\% |
| 47 | 14 | 1,917 | 0.0073 | 0.38\% | 0.53\% | 7.3 | 10.1 | 192\% | 139\% |
| 48 | 11 | 1,890 | 0.0058 | 0.42\% | 0.57\% | 7.9 | 10.8 | 139\% | 102\% |
| 49 | 12 | 1,951 | 0.0062 | 0.46\% | 0.62\% | 9.0 | 12.1 | 134\% | 99\% |
| 50 | 13 | 1,935 | 0.0067 | 0.50\% | 0.67\% | 9.7 | 13.0 | 134\% | 100\% |
| 51 | 13 | 1,857 | 0.0070 | 0.56\% | 0.73\% | 10.4 | 13.5 | 125\% | 96\% |
| 52 | 14 | 1,729 | 0.0081 | 0.62\% | 0.78\% | 10.7 | 13.6 | 131\% | 103\% |
| 53 | 9 | 1,607 | 0.0056 | 0.68\% | 0.84\% | 10.9 | 13.6 | 82\% | 66\% |
| 54 | 13 | 1,453 | 0.0089 | 0.74\% | 0.90\% | 10.8 | 13.1 | 121\% | 99\% |
| 55 | 11 | 1,312 | 0.0084 | 0.80\% | 0.97\% | 10.5 | 12.7 | 105\% | 87\% |
| 56 | 23 | 1,155 | 0.0199 | 0.88\% | 1.03\% | 10.2 | 11.9 | 226\% | 193\% |
| 57 | 16 | 1,000 | 0.0160 | 0.96\% | 1.10\% | 9.6 | 11.0 | 167\% | 145\% |
| 58 | 15 | 803 | 0.0187 | 1.04\% | 1.17\% | 8.4 | 9.4 | 180\% | 160\% |
| 59 | 8 | 647 | 0.0124 | 1.12\% | 1.24\% | 7.2 | 8.0 | 110\% | 100\% |
| 60 | 7 | 503 | 0.0139 | 1.20\% | 1.32\% | 6.0 | 6.6 | 116\% | 106\% |
| 61 | 6 | 383 | 0.0157 | 1.30\% | 1.36\% | 5.0 | 5.2 | 121\% | 115\% |
| 62 | 5 | 308 | 0.0162 | 1.40\% | 1.44\% | 4.3 | 4.4 | 116\% | 112\% |
| 63 | 3 | 193 | 0.0155 | 1.50\% | 1.53\% | 2.9 | 2.9 | 104\% | 102\% |
| 64 | 2 | 136 | 0.0147 | 1.60\% | 1.61\% | 2.2 | 2.2 | 92\% | 92\% |
| 65 | 0 | 9 | 0.0000 | 1.70\% | 1.68\% | 0.2 | 0.2 | 0\% | 0\% |
| 66 | 0 | 8 | 0.0000 | 1.82\% | 1.81\% | 0.1 | 0.1 | 0\% | 0\% |
| 67 | 0 | 6 | 0.0000 | 1.94\% | 1.84\% | 0.1 | 0.1 | 0\% | 0\% |
| 68 | 1 | 6 | 0.1667 | 2.06\% | 1.92\% | 0.1 | 0.1 | 809\% | 868\% |
| 69 | 0 | 3 | 0.0000 | 2.18\% | 2.00\% | 0.1 | 0.1 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 1 | 3 | 0.3333 | 0.00\% | 2.00\% | 0 | 0.1 | 0\% | 1667\% |
| Total | 311 | 60,191 |  |  |  | 229.9 | 261.3 | 135\% | 119\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN

|  | TABLE 11A GROUPED |  |  | Assumed Probability $\quad \begin{gathered}\text { 8-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | $\begin{gathered} \text { Proposed } \\ (8) /(3) \\ \hline \end{gathered}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 1,076 | 0.0000 | 0.10\% | 0.06\% | 1.1 | 0.6 | 0\% | 0\% |
| 25-29 | 1 | 4,912 | 0.0002 | 0.12\% | 0.06\% | 6.0 | 3.0 | 17\% | 33\% |
| 30-34 | 9 | 7,916 | 0.0011 | 0.17\% | 0.10\% | 13.6 | 7.6 | 66\% | 119\% |
| 35-39 | 24 | 9,492 | 0.0025 | 0.22\% | 0.19\% | 21.0 | 17.6 | 114\% | 136\% |
| 40-44 | 56 | 10,884 | 0.0051 | 0.27\% | 0.33\% | 29.4 | 35.8 | 191\% | 156\% |
| 45-49 | 57 | 9,678 | 0.0059 | 0.38\% | 0.53\% | 36.6 | 51.1 | 156\% | 112\% |
| 50-54 | 62 | 8,378 | 0.0074 | 0.61\% | 0.78\% | 51.3 | 65.4 | 121\% | 95\% |
| 55-59 | 72 | 4,833 | 0.0149 | 0.93\% | 1.08\% | 45.1 | 52.1 | 160\% | 138\% |
| 60-64 | 22 | 1,496 | 0.0147 | 1.34\% | 1.40\% | 20.0 | 21.0 | 110\% | 105\% |
| 65-69 | 1 | 31 | 0.0323 | 1.89\% | 1.81\% | 0.6 | 0.6 | 171\% | 179\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 1 | 3 | 0.3333 | 0.00\% | 2.00\% | 0 | 0.1 | 0\% | 1667\% |
| Total | 305 | 58,699 |  |  |  | 224.5 | 254.8 | 136\% | 120\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

| Age | TABLE 11B GROUPED |  |  | $\begin{array}{lcc} & \text { 8-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Assumed Probability } & \text { Expected Disabilities }\end{array}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2)/(3) } \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | Proposed (8) / (3) | Expected | Proposed | Expected $(2) /(7)$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 13 | 0.0000 | 0.10\% | 0.12\% | 0.0 | 0.0 | 0\% | 0\% |
| 25-29 | 0 | 109 | 0.0000 | 0.12\% | 0.15\% | 0.1 | 0.2 | 0\% | 0\% |
| 30-34 | 0 | 198 | 0.0000 | 0.17\% | 0.21\% | 0.3 | 0.4 | 0\% | 0\% |
| 35-39 | 0 | 254 | 0.0000 | 0.22\% | 0.26\% | 0.6 | 0.7 | 0\% | 0\% |
| 40-44 | 1 | 301 | 0.0033 | 0.27\% | 0.32\% | 0.8 | 1.0 | 123\% | 102\% |
| 45-49 | 3 | 302 | 0.0099 | 0.38\% | 0.45\% | 1.1 | 1.4 | 264\% | 220\% |
| 50-54 | 0 | 203 | 0.0000 | 0.60\% | 0.72\% | 1.2 | 1.5 | 0\% | 0\% |
| 55-59 | 1 | 84 | 0.0119 | 0.93\% | 1.12\% | 0.8 | 0.9 | 128\% | 107\% |
| 60-64 | 1 | 27 | 0.0370 | 1.36\% | 1.63\% | 0.4 | 0.4 | 272\% | 227\% |
| 65-69 | 0 | 1 | 0.0000 | 1.82\% | 2.18\% | 0.0 | 0.0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 6 | 1,492 |  |  |  | 5.4 | 6.5 | 111\% | 93\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

|  | TABLE 11C GROUPED |  |  | Assumed Probability $\quad \begin{gathered}\text { 8-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered} \quad$ Actual/Expected |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | $\begin{gathered} \text { Proposed } \\ (8) /(3) \\ \hline \end{gathered}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 1,089 | 0.0000 | 0.10\% | 0.06\% | 1.1 | 0.7 | 0\% | 0\% |
| 25-29 | 1 | 5,021 | 0.0002 | 0.12\% | 0.06\% | 6.2 | 3.2 | 16\% | 31\% |
| 30-34 | 9 | 8,114 | 0.0011 | 0.17\% | 0.10\% | 13.9 | 8.0 | 65\% | 113\% |
| 35-39 | 24 | 9,746 | 0.0025 | 0.22\% | 0.19\% | 21.5 | 18.3 | 112\% | 131\% |
| 40-44 | 57 | 11,185 | 0.0051 | 0.27\% | 0.33\% | 30.2 | 36.8 | 189\% | 155\% |
| 45-49 | 60 | 9,980 | 0.0060 | 0.38\% | 0.53\% | 37.7 | 52.5 | 159\% | 114\% |
| 50-54 | 62 | 8,581 | 0.0072 | 0.61\% | 0.78\% | 52.5 | 66.8 | 118\% | 93\% |
| 55-59 | 73 | 4,917 | 0.0148 | 0.93\% | 1.08\% | 45.9 | 53.1 | 159\% | 138\% |
| 60-64 | 23 | 1,523 | 0.0151 | 1.34\% | 1.41\% | 20.4 | 21.4 | 113\% | 107\% |
| 65-69 | 1 | 32 | 0.0313 | 1.89\% | 1.82\% | 0.6 | 0.6 | 166\% | 172\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 1 | 3 | 0.3333 | 0.00\% | 2.00\% | 0 | 0.1 | 0\% | 1667\% |
| Total | 311 | 60,191 |  |  |  | 229.9 | 261.3 | 135\% | 119\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Plan <br> Year <br> Ending <br> June 30, | TABLE 11D <br> Life Years Exposed | Actual Disabilities | Expected Disabilities | 10-YEAR PERIOD ENDING 6/30/2013 <br> Disability Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / Expected | $\begin{gathered} \text { Actual } \\ (3) /(2) \end{gathered}$ | $\begin{gathered} \hline \text { Expected } \\ (4) /(2) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 7,502 | 29 | 24.5 | 118\% | 0.39\% | 0.33\% |
| 2005 | 7,329 | 27 | 23.7 | 114\% | 0.37\% | 0.32\% |
| 2006 | 7,577 | 56 | 24.0 | 233\% | 0.74\% | 0.32\% |
| 2007 | 7,717 | 43 | 23.4 | 183\% | 0.56\% | 0.30\% |
| 2008 | 7,720 | 41 | 23.1 | 177\% | 0.53\% | 0.30\% |
| 2009 | 7,656 | 33 | 23.2 | 142\% | 0.43\% | 0.30\% |
| 2010 | 7,548 | 31 | 23.6 | 131\% | 0.41\% | 0.31\% |
| 2011 | 7,142 | 51 | 22.9 | 223\% | 0.71\% | 0.32\% |
| 2012 | 6,853 | 27 | 22.2 | 122\% | 0.39\% | 0.32\% |
| 2013 | 6,887 | 32 | 22.3 | 143\% | 0.46\% | 0.32\% |
| Total | 73,931 | 370 | 233.0 | 159\% | 0.50\% | 0.32\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION <br> TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS <br> MEN AND WOMEN

TABLE 12A 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Total Salary BOY |  | Actual Salary EOY |  | $\begin{gathered} \text { Expected Salary } \\ \text { EOY } \\ \hline \end{gathered}$ |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 13 | \$ | 550,402 | \$ | 580,569 | \$ | 588,930 | 78\% | 5.48\% | 7.00\% |
| 1 | 522 |  | 23,115,435 |  | 25,556,430 |  | 25,195,824 | 117\% | 10.56\% | 9.00\% |
| 2 | 673 |  | 29,839,019 |  | 33,346,772 |  | 33,121,311 | 107\% | 11.76\% | 11.00\% |
| 3 | 1,033 |  | 49,572,710 |  | 57,958,780 |  | 57,504,344 | 106\% | 16.92\% | 16.00\% |
| 4 | 1,712 |  | 99,068,407 |  | 122,724,456 |  | 133,742,349 | 68\% | 23.88\% | 35.00\% |
| 5 | 2,311 |  | 166,553,452 |  | 200,724,510 |  | 208,191,815 | 82\% | 20.52\% | 25.00\% |
| 6 | 1,928 |  | 165,370,449 |  | 172,599,941 |  | 172,646,749 | 99\% | 4.37\% | 4.40\% |
| 7 | 1,581 |  | 140,580,593 |  | 143,199,263 |  | 147,047,300 | 40\% | 1.86\% | 4.60\% |
| 8 | 1,217 |  | 107,264,522 |  | 110,757,825 |  | 112,413,219 | 68\% | 3.26\% | 4.80\% |
| 9 | 1,280 |  | 110,485,877 |  | 116,714,087 |  | 117,336,001 | 91\% | 5.64\% | 6.20\% |
| 10 | 1,525 |  | 137,134,356 |  | 143,754,728 |  | 143,991,074 | 97\% | 4.83\% | 5.00\% |
| 11 | 1,629 |  | 152,644,300 |  | 156,345,773 |  | 160,123,871 | 49\% | 2.42\% | 4.90\% |
| 12 | 1,622 |  | 154,053,881 |  | 157,265,580 |  | 161,448,467 | 43\% | 2.08\% | 4.80\% |
| 13 | 862 |  | 82,210,682 |  | 83,475,236 |  | 86,074,584 | 33\% | 1.54\% | 4.70\% |
| 14 | 763 |  | 71,395,293 |  | 73,676,324 |  | 75,607,615 | 54\% | 3.19\% | 5.90\% |
| 15 | 583 |  | 55,808,957 |  | 57,262,634 |  | 58,320,360 | 58\% | 2.60\% | 4.50\% |
| 16 | 810 |  | 78,079,128 |  | 80,601,980 |  | 81,514,610 | 73\% | 3.23\% | 4.40\% |
| 17 | 728 |  | 72,468,651 |  | 72,811,286 |  | 75,584,803 | 11\% | 0.47\% | 4.30\% |
| 18 | 509 |  | 50,474,393 |  | 50,805,435 |  | 52,594,318 | 16\% | 0.66\% | 4.20\% |
| 19 | 886 |  | 88,801,573 |  | 91,904,987 |  | 93,596,858 | 65\% | 3.49\% | 5.40\% |
| 20 | 754 |  | 77,794,344 |  | 78,821,524 |  | 80,906,118 | 33\% | 1.32\% | 4.00\% |
| 21 | 722 |  | 75,467,606 |  | 75,353,320 |  | 78,410,843 | -4\% | -0.15\% | 3.90\% |
| 22 | 831 |  | 86,970,086 |  | 88,040,032 |  | 90,274,949 | 32\% | 1.23\% | 3.80\% |
| 23 | 577 |  | 60,707,717 |  | 60,991,098 |  | 62,953,903 | 13\% | 0.47\% | 3.70\% |
| 24 | 477 |  | 50,273,214 |  | 50,940,707 |  | 52,083,050 | 37\% | 1.33\% | 3.60\% |
| 25 | 422 |  | 44,926,361 |  | 45,208,826 |  | 46,498,784 | 18\% | 0.63\% | 3.50\% |
| 26 | 287 |  | 30,582,336 |  | 30,694,565 |  | 31,652,718 | 10\% | 0.37\% | 3.50\% |
| 27 | 217 |  | 23,022,484 |  | 23,171,745 |  | 23,828,271 | 19\% | 0.65\% | 3.50\% |
| 28 | 204 |  | 22,395,240 |  | 22,797,620 |  | 23,179,073 | 51\% | 1.80\% | 3.50\% |
| 29 | 127 |  | 14,561,285 |  | 14,570,107 |  | 15,070,930 | 2\% | 0.06\% | 3.50\% |
| 30+ | 91 |  | 10,459,389 |  | 10,524,186 |  | 10,825,468 | 18\% | 0.62\% | 3.50\% |
| Total | 26,896 |  | 2,332,632,142 |  | 2,453,180,326 |  | ,512,328,507 | 67\% | 5.17\% | 7.70\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION <br> TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS <br> MEN AND WOMEN

TABLE 12A

| Service | Life Years Exposed | Total Salary BOY |  | Actual Salary EOY |  | $\begin{gathered} \text { Proposed Salary } \\ \text { EOY } \end{gathered}$ |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 13 | \$ | 550,402 | \$ | 580,569 | \$ | 597,186 | 64\% | 5.48\% | 8.50\% |
| 1 | 522 |  | 23,115,435 |  | 25,556,430 |  | 25,542,556 | 101\% | 10.56\% | 10.50\% |
| 2 | 673 |  | 29,839,019 |  | 33,346,772 |  | 33,270,506 | 102\% | 11.76\% | 11.50\% |
| 3 | 1,033 |  | 49,572,710 |  | 57,958,780 |  | 57,752,207 | 103\% | 16.92\% | 16.50\% |
| 4 | 1,712 |  | 99,068,407 |  | 122,724,456 |  | 127,798,245 | 82\% | 23.88\% | 29.00\% |
| 5 | 2,311 |  | 166,553,452 |  | 200,724,510 |  | 206,526,280 | 85\% | 20.52\% | 24.00\% |
| 6 | 1,928 |  | 165,370,449 |  | 172,599,941 |  | 173,473,601 | 89\% | 4.37\% | 4.90\% |
| 7 | 1,581 |  | 140,580,593 |  | 143,199,263 |  | 147,750,203 | 37\% | 1.86\% | 5.10\% |
| 8 | 1,217 |  | 107,264,522 |  | 110,757,825 |  | 112,949,542 | 61\% | 3.26\% | 5.30\% |
| 9 | 1,280 |  | 110,485,877 |  | 116,714,087 |  | 117,888,431 | 84\% | 5.64\% | 6.70\% |
| 10 | 1,525 |  | 137,134,356 |  | 143,754,728 |  | 144,676,746 | 88\% | 4.83\% | 5.50\% |
| 11 | 1,629 |  | 152,644,300 |  | 156,345,773 |  | 160,887,092 | 45\% | 2.42\% | 5.40\% |
| 12 | 1,622 |  | 154,053,881 |  | 157,265,580 |  | 162,218,737 | 39\% | 2.08\% | 5.30\% |
| 13 | 862 |  | 82,210,682 |  | 83,475,236 |  | 86,485,637 | 30\% | 1.54\% | 5.20\% |
| 14 | 763 |  | 71,395,293 |  | 73,676,324 |  | 75,964,592 | 50\% | 3.19\% | 6.40\% |
| 15 | 583 |  | 55,808,957 |  | 57,262,634 |  | 58,599,405 | 52\% | 2.60\% | 5.00\% |
| 16 | 810 |  | 78,079,128 |  | 80,601,980 |  | 81,905,005 | 66\% | 3.23\% | 4.90\% |
| 17 | 728 |  | 72,468,651 |  | 72,811,286 |  | 75,947,146 | 10\% | 0.47\% | 4.80\% |
| 18 | 509 |  | 50,474,393 |  | 50,805,435 |  | 52,846,689 | 14\% | 0.66\% | 4.70\% |
| 19 | 886 |  | 88,801,573 |  | 91,904,987 |  | 94,040,866 | 59\% | 3.49\% | 5.90\% |
| 20 | 754 |  | 77,794,344 |  | 78,821,524 |  | 81,295,089 | 29\% | 1.32\% | 4.50\% |
| 21 | 722 |  | 75,467,606 |  | 75,353,320 |  | 78,788,181 | -3\% | -0.15\% | 4.40\% |
| 22 | 831 |  | 86,970,086 |  | 88,040,032 |  | 90,709,800 | 29\% | 1.23\% | 4.30\% |
| 23 | 577 |  | 60,707,717 |  | 60,991,098 |  | 63,257,441 | 11\% | 0.47\% | 4.20\% |
| 24 | 477 |  | 50,273,214 |  | 50,940,707 |  | 52,334,416 | 32\% | 1.33\% | 4.10\% |
| 25 | 422 |  | 44,926,361 |  | 45,208,826 |  | 46,723,415 | 16\% | 0.63\% | 4.00\% |
| 26 | 287 |  | 30,582,336 |  | 30,694,565 |  | 31,805,629 | 9\% | 0.37\% | 4.00\% |
| 27 | 217 |  | 23,022,484 |  | 23,171,745 |  | 23,943,383 | 16\% | 0.65\% | 4.00\% |
| 28 | 204 |  | 22,395,240 |  | 22,797,620 |  | 23,291,050 | 45\% | 1.80\% | 4.00\% |
| 29 | 127 |  | 14,561,285 |  | 14,570,107 |  | 15,143,736 | 2\% | 0.06\% | 4.00\% |
| 30+ | 91 |  | 10,459,389 |  | 10,524,186 |  | 10,877,765 | 15\% | 0.62\% | 4.00\% |
| Total | 26,896 |  | 2,332,632,142 |  | 2,453,180,326 |  | ,515,290,578 | 66\% | 5.17\% | 7.83\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

TABLE 12B 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Total Salary BOY |  | Estimated Actual <br> Merit Salary EOY |  | Expected Merit Salary EOY |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 13 | \$ | 550,402 | \$ | 625,844 | \$ | 569,666 | 392\% | 13.71\% | 3.50\% |
| 1 | 522 |  | 23,115,435 |  | 24,700,204 |  | 24,386,784 | 125\% | 6.86\% | 5.50\% |
| 2 | 673 |  | 29,839,019 |  | 32,072,870 |  | 32,076,945 | 100\% | 7.49\% | 7.50\% |
| 3 | 1,033 |  | 49,572,710 |  | 54,429,358 |  | 55,769,299 | 78\% | 9.80\% | 12.50\% |
| 4 | 1,712 |  | 99,068,407 |  | 115,523,019 |  | 130,274,955 | 53\% | 16.61\% | 31.50\% |
| 5 | 2,311 |  | 166,553,452 |  | 193,226,599 |  | 202,362,444 | 74\% | 16.01\% | 21.50\% |
| 6 | 1,928 |  | 165,370,449 |  | 170,819,908 |  | 166,858,783 | 366\% | 3.30\% | 0.90\% |
| 7 | 1,581 |  | 140,580,593 |  | 142,859,153 |  | 142,126,980 | 147\% | 1.62\% | 1.10\% |
| 8 | 1,217 |  | 107,264,522 |  | 109,223,482 |  | 108,658,961 | 140\% | 1.83\% | 1.30\% |
| 9 | 1,280 |  | 110,485,877 |  | 113,482,438 |  | 113,468,996 | 100\% | 2.71\% | 2.70\% |
| 10 | 1,525 |  | 137,134,356 |  | 140,919,722 |  | 139,191,371 | 184\% | 2.76\% | 1.50\% |
| 11 | 1,629 |  | 152,644,300 |  | 155,782,373 |  | 154,781,320 | 147\% | 2.06\% | 1.40\% |
| 12 | 1,622 |  | 154,053,881 |  | 157,086,894 |  | 156,056,581 | 151\% | 1.97\% | 1.30\% |
| 13 | 862 |  | 82,210,682 |  | 83,919,098 |  | 83,197,210 | 173\% | 2.08\% | 1.20\% |
| 14 | 763 |  | 71,395,293 |  | 72,285,737 |  | 73,108,780 | 52\% | 1.25\% | 2.40\% |
| 15 | 583 |  | 55,808,957 |  | 56,766,799 |  | 56,367,047 | 172\% | 1.72\% | 1.00\% |
| 16 | 810 |  | 78,079,128 |  | 78,476,262 |  | 78,781,840 | 57\% | 0.51\% | 0.90\% |
| 17 | 728 |  | 72,468,651 |  | 72,832,018 |  | 73,048,400 | 63\% | 0.50\% | 0.80\% |
| 18 | 509 |  | 50,474,393 |  | 50,863,906 |  | 50,827,714 | 110\% | 0.77\% | 0.70\% |
| 19 | 886 |  | 88,801,573 |  | 89,648,616 |  | 90,488,803 | 50\% | 0.95\% | 1.90\% |
| 20 | 754 |  | 77,794,344 |  | 78,086,306 |  | 78,183,316 | 75\% | 0.38\% | 0.50\% |
| 21 | 722 |  | 75,467,606 |  | 75,527,059 |  | 75,769,476 | 20\% | 0.08\% | 0.40\% |
| 22 | 831 |  | 86,970,086 |  | 86,869,788 |  | 87,230,996 | -38\% | -0.12\% | 0.30\% |
| 23 | 577 |  | 60,707,717 |  | 60,594,346 |  | 60,829,132 | -93\% | -0.19\% | 0.20\% |
| 24 | 477 |  | 50,273,214 |  | 50,281,051 |  | 50,323,487 | 16\% | 0.02\% | 0.10\% |
| 25 | 422 |  | 44,926,361 |  | 44,926,361 |  | 44,926,361 |  | 0.00\% | 0.00\% |
| 26 | 287 |  | 30,582,336 |  | 30,582,336 |  | 30,582,336 |  | 0.00\% | 0.00\% |
| 27 | 217 |  | 23,022,484 |  | 23,022,484 |  | 23,022,484 |  | 0.00\% | 0.00\% |
| 28 | 204 |  | 22,395,240 |  | 22,395,240 |  | 22,395,240 |  | 0.00\% | 0.00\% |
| 29 | 127 |  | 14,561,285 |  | 14,561,285 |  | 14,561,285 |  | 0.00\% | 0.00\% |
| 30+ | 91 |  | 10,459,389 |  | 10,459,389 |  | 10,459,389 |  | 0.00\% | 0.00\% |
| Total | 26,896 |  | 2,332,632,142 |  | 2,412,849,944 |  | 430,686,382 | 82\% | 3.44\% | 4.20\% |

The rates for expected merit salary increases are based on actual rates of increase for total salary, adjusted for inflation of $1.71 \%$. Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION <br> MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS <br> MEN AND WOMEN

TABLE 12B 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Total Salary BOY |  | Estimated Actual <br> Merit Salary EOY |  | Proposed Merit Salary EOY |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 13 | \$ | 550,402 | \$ | 625,844 | \$ | 575,170 | 305\% | 13.71\% | 4.50\% |
| 1 | 522 |  | 23,115,435 |  | 24,700,204 |  | 24,617,938 | 105\% | 6.86\% | 6.50\% |
| 2 | 673 |  | 29,839,019 |  | 32,072,870 |  | 32,076,945 | 100\% | 7.49\% | 7.50\% |
| 3 | 1,033 |  | 49,572,710 |  | 54,429,358 |  | 55,769,299 | 78\% | 9.80\% | 12.50\% |
| 4 | 1,712 |  | 99,068,407 |  | 115,523,019 |  | 123,835,509 | 66\% | 16.61\% | 25.00\% |
| 5 | 2,311 |  | 166,553,452 |  | 193,226,599 |  | 199,864,142 | 80\% | 16.01\% | 20.00\% |
| 6 | 1,928 |  | 165,370,449 |  | 170,819,908 |  | 166,858,783 | 366\% | 3.30\% | 0.90\% |
| 7 | 1,581 |  | 140,580,593 |  | 142,859,153 |  | 142,126,980 | 147\% | 1.62\% | 1.10\% |
| 8 | 1,217 |  | 107,264,522 |  | 109,223,482 |  | 108,658,961 | 140\% | 1.83\% | 1.30\% |
| 9 | 1,280 |  | 110,485,877 |  | 113,482,438 |  | 113,468,996 | 100\% | 2.71\% | 2.70\% |
| 10 | 1,525 |  | 137,134,356 |  | 140,919,722 |  | 139,191,371 | 184\% | 2.76\% | 1.50\% |
| 11 | 1,629 |  | 152,644,300 |  | 155,782,373 |  | 154,781,320 | 147\% | 2.06\% | 1.40\% |
| 12 | 1,622 |  | 154,053,881 |  | 157,086,894 |  | 156,056,581 | 151\% | 1.97\% | 1.30\% |
| 13 | 862 |  | 82,210,682 |  | 83,919,098 |  | 83,197,210 | 173\% | 2.08\% | 1.20\% |
| 14 | 763 |  | 71,395,293 |  | 72,285,737 |  | 73,108,780 | 52\% | 1.25\% | 2.40\% |
| 15 | 583 |  | 55,808,957 |  | 56,766,799 |  | 56,367,047 | 172\% | 1.72\% | 1.00\% |
| 16 | 810 |  | 78,079,128 |  | 78,476,262 |  | 78,781,840 | 57\% | 0.51\% | 0.90\% |
| 17 | 728 |  | 72,468,651 |  | 72,832,018 |  | 73,048,400 | 63\% | 0.50\% | 0.80\% |
| 18 | 509 |  | 50,474,393 |  | 50,863,906 |  | 50,827,714 | 110\% | 0.77\% | 0.70\% |
| 19 | 886 |  | 88,801,573 |  | 89,648,616 |  | 90,488,803 | 50\% | 0.95\% | 1.90\% |
| 20 | 754 |  | 77,794,344 |  | 78,086,306 |  | 78,183,316 | 75\% | 0.38\% | 0.50\% |
| 21 | 722 |  | 75,467,606 |  | 75,527,059 |  | 75,769,476 | 20\% | 0.08\% | 0.40\% |
| 22 | 831 |  | 86,970,086 |  | 86,869,788 |  | 87,230,996 | -38\% | -0.12\% | 0.30\% |
| 23 | 577 |  | 60,707,717 |  | 60,594,346 |  | 60,829,132 | -93\% | -0.19\% | 0.20\% |
| 24 | 477 |  | 50,273,214 |  | 50,281,051 |  | 50,323,487 | 16\% | 0.02\% | 0.10\% |
| 25 | 422 |  | 44,926,361 |  | 44,926,361 |  | 44,926,361 |  | 0.00\% | 0.00\% |
| 26 | 287 |  | 30,582,336 |  | 30,582,336 |  | 30,582,336 |  | 0.00\% | 0.00\% |
| 27 | 217 |  | 23,022,484 |  | 23,022,484 |  | 23,022,484 |  | 0.00\% | 0.00\% |
| 28 | 204 |  | 22,395,240 |  | 22,395,240 |  | 22,395,240 |  | 0.00\% | 0.00\% |
| 29 | 127 |  | 14,561,285 |  | 14,561,285 |  | 14,561,285 |  | 0.00\% | 0.00\% |
| $30+$ | 91 |  | 10,459,389 |  | 10,459,389 |  | 10,459,389 |  | 0.00\% | 0.00\% |
| Total | 26,896 |  | 2,332,632,142 |  | 2,412,849,944 |  | 421,985,293 | 90\% | 3.44\% | 3.83\% |

Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION <br> TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS <br> MEN AND WOMEN

TABLE 12A 10-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Total Salary BOY |  | Actual Salary EOY |  | $\begin{gathered} \text { Expected Salary } \\ \text { EOY } \\ \hline \end{gathered}$ |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 768 | \$ | 26,655,082 | \$ | 34,044,354 | \$ | 28,520,938 | 396\% | 27.72\% | 7.00\% |
| 1 | 3,296 |  | 139,947,741 |  | 155,632,006 |  | 152,543,038 | 125\% | 11.21\% | 9.00\% |
| 2 | 2,833 |  | 133,871,238 |  | 149,061,352 |  | 148,597,074 | 103\% | 11.35\% | 11.00\% |
| 3 | 3,870 |  | 192,853,114 |  | 217,659,922 |  | 223,709,612 | 80\% | 12.86\% | 16.00\% |
| 4 | 4,270 |  | 235,859,768 |  | 288,633,422 |  | 318,410,687 | 64\% | 22.38\% | 35.00\% |
| 5 | 4,195 |  | 279,295,221 |  | 337,292,895 |  | 349,119,026 | 83\% | 20.77\% | 25.00\% |
| 6 | 4,054 |  | 316,696,743 |  | 334,945,882 |  | 330,631,400 | 131\% | 5.76\% | 4.40\% |
| 7 | 3,665 |  | 299,389,405 |  | 311,862,618 |  | 313,161,318 | 91\% | 4.17\% | 4.60\% |
| 8 | 3,311 |  | 269,854,686 |  | 278,685,243 |  | 282,807,711 | 68\% | 3.27\% | 4.80\% |
| 9 | 2,513 |  | 204,460,177 |  | 217,180,149 |  | 217,136,708 | 100\% | 6.22\% | 6.20\% |
| 10 | 2,819 |  | 231,172,798 |  | 242,584,405 |  | 242,731,438 | 99\% | 4.94\% | 5.00\% |
| 11 | 2,808 |  | 240,571,151 |  | 252,250,349 |  | 252,359,137 | 99\% | 4.85\% | 4.90\% |
| 12 | 2,522 |  | 225,278,554 |  | 231,825,249 |  | 236,091,925 | 61\% | 2.91\% | 4.80\% |
| 13 | 2,369 |  | 196,809,387 |  | 204,283,296 |  | 206,059,428 | 81\% | 3.80\% | 4.70\% |
| 14 | 2,499 |  | 199,535,873 |  | 213,393,020 |  | 211,308,490 | 118\% | 6.94\% | 5.90\% |
| 15 | 2,424 |  | 201,953,672 |  | 214,046,375 |  | 211,041,587 | 133\% | 5.99\% | 4.50\% |
| 16 | 2,663 |  | 223,750,202 |  | 235,903,234 |  | 233,595,211 | 123\% | 5.43\% | 4.40\% |
| 17 | 2,766 |  | 239,307,443 |  | 252,773,686 |  | 249,597,663 | 131\% | 5.63\% | 4.30\% |
| 18 | 3,060 |  | 265,140,883 |  | 276,136,481 |  | 276,276,800 | 99\% | 4.15\% | 4.20\% |
| 19 | 2,818 |  | 249,859,460 |  | 265,293,000 |  | 263,351,871 | 114\% | 6.18\% | 5.40\% |
| 20 | 1,918 |  | 178,291,187 |  | 186,123,758 |  | 185,422,834 | 110\% | 4.39\% | 4.00\% |
| 21 | 1,671 |  | 161,306,145 |  | 165,835,103 |  | 167,597,085 | 72\% | 2.81\% | 3.90\% |
| 22 | 1,686 |  | 162,258,404 |  | 167,058,389 |  | 168,424,223 | 78\% | 2.96\% | 3.80\% |
| 23 | 1,303 |  | 126,220,251 |  | 130,848,588 |  | 130,890,400 | 99\% | 3.67\% | 3.70\% |
| 24 | 992 |  | 97,796,458 |  | 100,760,888 |  | 101,317,130 | 84\% | 3.03\% | 3.60\% |
| 25 | 748 |  | 75,820,978 |  | 78,167,449 |  | 78,474,712 | 88\% | 3.09\% | 3.50\% |
| 26 | 528 |  | 55,042,493 |  | 56,093,707 |  | 56,968,980 | 55\% | 1.91\% | 3.50\% |
| 27 | 404 |  | 42,529,683 |  | 43,418,371 |  | 44,018,222 | 60\% | 2.09\% | 3.50\% |
| 28 | 284 |  | 30,525,587 |  | 31,276,564 |  | 31,593,983 | 70\% | 2.46\% | 3.50\% |
| 29 | 198 |  | 21,260,530 |  | 21,541,283 |  | 22,004,649 | 38\% | 1.32\% | 3.50\% |
| 30+ | 156 |  | 16,262,554 |  | 16,693,196 |  | 16,831,743 | 76\% | 2.65\% | 3.50\% |
| Total | 69,411 |  | 5,339,576,868 |  | 5,711,304,234 |  | 5,750,595,023 | 90\% | 6.96\% | 7.70\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

## TABLE 12A

10-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Total Salary BOY |  | Actual Salary EOY |  | $\begin{gathered} \text { Proposed Salary } \\ \text { EOY } \\ \hline \end{gathered}$ |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 768 | \$ | 26,655,082 | \$ | 34,044,354 | \$ | 28,920,764 | 326\% | 27.72\% | 8.50\% |
| 1 | 3,296 |  | 139,947,741 |  | 155,632,006 |  | 154,642,254 | 107\% | 11.21\% | 10.50\% |
| 2 | 2,833 |  | 133,871,238 |  | 149,061,352 |  | 149,266,430 | 99\% | 11.35\% | 11.50\% |
| 3 | 3,870 |  | 192,853,114 |  | 217,659,922 |  | 224,673,878 | 78\% | 12.86\% | 16.50\% |
| 4 | 4,270 |  | 235,859,768 |  | 288,633,422 |  | 304,259,101 | 77\% | 22.38\% | 29.00\% |
| 5 | 4,195 |  | 279,295,221 |  | 337,292,895 |  | 346,326,074 | 87\% | 20.77\% | 24.00\% |
| 6 | 4,054 |  | 316,696,743 |  | 334,945,882 |  | 332,214,883 | 118\% | 5.76\% | 4.90\% |
| 7 | 3,665 |  | 299,389,405 |  | 311,862,618 |  | 314,658,265 | 82\% | 4.17\% | 5.10\% |
| 8 | 3,311 |  | 269,854,686 |  | 278,685,243 |  | 284,156,984 | 62\% | 3.27\% | 5.30\% |
| 9 | 2,513 |  | 204,460,177 |  | 217,180,149 |  | 218,159,009 | 93\% | 6.22\% | 6.70\% |
| 10 | 2,819 |  | 231,172,798 |  | 242,584,405 |  | 243,887,302 | 90\% | 4.94\% | 5.50\% |
| 11 | 2,808 |  | 240,571,151 |  | 252,250,349 |  | 253,561,993 | 90\% | 4.85\% | 5.40\% |
| 12 | 2,522 |  | 225,278,554 |  | 231,825,249 |  | 237,218,317 | 55\% | 2.91\% | 5.30\% |
| 13 | 2,369 |  | 196,809,387 |  | 204,283,296 |  | 207,043,475 | 73\% | 3.80\% | 5.20\% |
| 14 | 2,499 |  | 199,535,873 |  | 213,393,020 |  | 212,306,169 | 109\% | 6.94\% | 6.40\% |
| 15 | 2,424 |  | 201,953,672 |  | 214,046,375 |  | 212,051,356 | 120\% | 5.99\% | 5.00\% |
| 16 | 2,663 |  | 223,750,202 |  | 235,903,234 |  | 234,713,962 | 111\% | 5.43\% | 4.90\% |
| 17 | 2,766 |  | 239,307,443 |  | 252,773,686 |  | 250,794,200 | 117\% | 5.63\% | 4.80\% |
| 18 | 3,060 |  | 265,140,883 |  | 276,136,481 |  | 277,602,505 | 88\% | 4.15\% | 4.70\% |
| 19 | 2,818 |  | 249,859,460 |  | 265,293,000 |  | 264,601,168 | 105\% | 6.18\% | 5.90\% |
| 20 | 1,918 |  | 178,291,187 |  | 186,123,758 |  | 186,314,290 | 98\% | 4.39\% | 4.50\% |
| 21 | 1,671 |  | 161,306,145 |  | 165,835,103 |  | 168,403,615 | 64\% | 2.81\% | 4.40\% |
| 22 | 1,686 |  | 162,258,404 |  | 167,058,389 |  | 169,235,515 | 69\% | 2.96\% | 4.30\% |
| 23 | 1,303 |  | 126,220,251 |  | 130,848,588 |  | 131,521,502 | 87\% | 3.67\% | 4.20\% |
| 24 | 992 |  | 97,796,458 |  | 100,760,888 |  | 101,806,113 | 74\% | 3.03\% | 4.10\% |
| 25 | 748 |  | 75,820,978 |  | 78,167,449 |  | 78,853,817 | 77\% | 3.09\% | 4.00\% |
| 26 | 528 |  | 55,042,493 |  | 56,093,707 |  | 57,244,193 | 48\% | 1.91\% | 4.00\% |
| 27 | 404 |  | 42,529,683 |  | 43,418,371 |  | 44,230,870 | 52\% | 2.09\% | 4.00\% |
| 28 | 284 |  | 30,525,587 |  | 31,276,564 |  | 31,746,610 | 62\% | 2.46\% | 4.00\% |
| 29 | 198 |  | 21,260,530 |  | 21,541,283 |  | 22,110,951 | 33\% | 1.32\% | 4.00\% |
| 30+ | 156 |  | 16,262,554 |  | 16,693,196 |  | 16,913,056 | 66\% | 2.65\% | 4.00\% |
| Total | 69,411 |  | 5,339,576,868 |  | 5,711,304,234 |  | 5,759,438,622 | 89\% | 6.96\% | 7.86\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

TABLE 12B
10-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Total Salary BOY |  | Estimated Actual <br> Merit Salary EOY |  | Expected Merit Salary EOY |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 768 | \$ | 26,655,082 | \$ | 30,308,602 | \$ | 27,588,010 | 392\% | 13.71\% | 3.50\% |
| 1 | 3,296 |  | 139,947,741 |  | 149,542,407 |  | 147,644,867 | 125\% | 6.86\% | 5.50\% |
| 2 | 2,833 |  | 133,871,238 |  | 143,893,297 |  | 143,911,581 | 100\% | 7.49\% | 7.50\% |
| 3 | 3,870 |  | 192,853,114 |  | 211,746,972 |  | 216,959,753 | 78\% | 9.80\% | 12.50\% |
| 4 | 4,270 |  | 235,859,768 |  | 275,034,528 |  | 310,155,595 | 53\% | 16.61\% | 31.50\% |
| 5 | 4,195 |  | 279,295,221 |  | 324,023,699 |  | 339,343,694 | 74\% | 16.01\% | 21.50\% |
| 6 | 4,054 |  | 316,696,743 |  | 327,132,864 |  | 319,547,014 | 366\% | 3.30\% | 0.90\% |
| 7 | 3,665 |  | 299,389,405 |  | 304,241,973 |  | 302,682,688 | 147\% | 1.62\% | 1.10\% |
| 8 | 3,311 |  | 269,854,686 |  | 274,783,013 |  | 273,362,797 | 140\% | 1.83\% | 1.30\% |
| 9 | 2,513 |  | 204,460,177 |  | 210,005,478 |  | 209,980,602 | 100\% | 2.71\% | 2.70\% |
| 10 | 2,819 |  | 231,172,798 |  | 237,553,938 |  | 234,640,390 | 184\% | 2.76\% | 1.50\% |
| 11 | 2,808 |  | 240,571,151 |  | 245,516,831 |  | 243,939,147 | 147\% | 2.06\% | 1.40\% |
| 12 | 2,522 |  | 225,278,554 |  | 229,713,839 |  | 228,207,175 | 151\% | 1.97\% | 1.30\% |
| 13 | 2,369 |  | 196,809,387 |  | 200,899,273 |  | 199,171,100 | 173\% | 2.08\% | 1.20\% |
| 14 | 2,499 |  | 199,535,873 |  | 202,024,489 |  | 204,324,734 | 52\% | 1.25\% | 2.40\% |
| 15 | 2,424 |  | 201,953,672 |  | 205,419,776 |  | 203,973,209 | 172\% | 1.72\% | 1.00\% |
| 16 | 2,663 |  | 223,750,202 |  | 224,888,264 |  | 225,763,954 | 57\% | 0.51\% | 0.90\% |
| 17 | 2,766 |  | 239,307,443 |  | 240,507,359 |  | 241,221,903 | 63\% | 0.50\% | 0.80\% |
| 18 | 3,060 |  | 265,140,883 |  | 267,186,984 |  | 266,996,869 | 110\% | 0.77\% | 0.70\% |
| 19 | 2,818 |  | 249,859,460 |  | 252,242,769 |  | 254,606,790 | 50\% | 0.95\% | 1.90\% |
| 20 | 1,918 |  | 178,291,187 |  | 178,960,313 |  | 179,182,643 | 75\% | 0.38\% | 0.50\% |
| 21 | 1,671 |  | 161,306,145 |  | 161,433,220 |  | 161,951,370 | 20\% | 0.08\% | 0.40\% |
| 22 | 1,686 |  | 162,258,404 |  | 162,071,279 |  | 162,745,179 | -38\% | -0.12\% | 0.30\% |
| 23 | 1,303 |  | 126,220,251 |  | 125,984,535 |  | 126,472,692 | -93\% | -0.19\% | 0.20\% |
| 24 | 992 |  | 97,796,458 |  | 97,811,704 |  | 97,894,254 | 16\% | 0.02\% | 0.10\% |
| 25 | 748 |  | 75,820,978 |  | 75,820,978 |  | 75,820,978 |  | 0.00\% | 0.00\% |
| 26 | 528 |  | 55,042,493 |  | 55,042,493 |  | 55,042,493 |  | 0.00\% | 0.00\% |
| 27 | 404 |  | 42,529,683 |  | 42,529,683 |  | 42,529,683 |  | 0.00\% | 0.00\% |
| 28 | 284 |  | 30,525,587 |  | 30,525,587 |  | 30,525,587 |  | 0.00\% | 0.00\% |
| 29 | 198 |  | 21,260,530 |  | 21,260,530 |  | 21,260,530 |  | 0.00\% | 0.00\% |
| 30+ | 156 |  | 16,262,554 |  | 16,262,554 |  | 16,262,554 |  | 0.00\% | 0.00\% |
| Total | 69,411 |  | 5,339,576,868 |  | 5,524,369,232 |  | 563,709,833 | 82\% | 3.46\% | 4.20\% |

The rates for expected merit salary increases are based on actual rates of increase for total salary, adjusted for inflation of $2.43 \%$.
Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

TABLE 12B

| Service | Life Years Exposed | Total Salary BOY |  | Estimated Actual Merit Salary EOY |  | Proposed Merit Salary EOY |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 768 | \$ | 26,655,082 | \$ | 30,308,602 | \$ | 27,854,561 | 305\% | 13.71\% | 4.50\% |
| 1 | 3,296 |  | 139,947,741 |  | 149,542,407 |  | 149,044,344 | 105\% | 6.86\% | 6.50\% |
| 2 | 2,833 |  | 133,871,238 |  | 143,893,297 |  | 143,911,581 | 100\% | 7.49\% | 7.50\% |
| 3 | 3,870 |  | 192,853,114 |  | 211,746,972 |  | 216,959,753 | 78\% | 9.80\% | 12.50\% |
| 4 | 4,270 |  | 235,859,768 |  | 275,034,528 |  | 294,824,710 | 66\% | 16.61\% | 25.00\% |
| 5 | 4,195 |  | 279,295,221 |  | 324,023,699 |  | 335,154,265 | 80\% | 16.01\% | 20.00\% |
| 6 | 4,054 |  | 316,696,743 |  | 327,132,864 |  | 319,547,014 | 366\% | 3.30\% | 0.90\% |
| 7 | 3,665 |  | 299,389,405 |  | 304,241,973 |  | 302,682,688 | 147\% | 1.62\% | 1.10\% |
| 8 | 3,311 |  | 269,854,686 |  | 274,783,013 |  | 273,362,797 | 140\% | 1.83\% | 1.30\% |
| 9 | 2,513 |  | 204,460,177 |  | 210,005,478 |  | 209,980,602 | 100\% | 2.71\% | 2.70\% |
| 10 | 2,819 |  | 231,172,798 |  | 237,553,938 |  | 234,640,390 | 184\% | 2.76\% | 1.50\% |
| 11 | 2,808 |  | 240,571,151 |  | 245,516,831 |  | 243,939,147 | 147\% | 2.06\% | 1.40\% |
| 12 | 2,522 |  | 225,278,554 |  | 229,713,839 |  | 228,207,175 | 151\% | 1.97\% | 1.30\% |
| 13 | 2,369 |  | 196,809,387 |  | 200,899,273 |  | 199,171,100 | 173\% | 2.08\% | 1.20\% |
| 14 | 2,499 |  | 199,535,873 |  | 202,024,489 |  | 204,324,734 | 52\% | 1.25\% | 2.40\% |
| 15 | 2,424 |  | 201,953,672 |  | 205,419,776 |  | 203,973,209 | 172\% | 1.72\% | 1.00\% |
| 16 | 2,663 |  | 223,750,202 |  | 224,888,264 |  | 225,763,954 | 57\% | 0.51\% | 0.90\% |
| 17 | 2,766 |  | 239,307,443 |  | 240,507,359 |  | 241,221,903 | 63\% | 0.50\% | 0.80\% |
| 18 | 3,060 |  | 265,140,883 |  | 267,186,984 |  | 266,996,869 | 110\% | 0.77\% | 0.70\% |
| 19 | 2,818 |  | 249,859,460 |  | 252,242,769 |  | 254,606,790 | 50\% | 0.95\% | 1.90\% |
| 20 | 1,918 |  | 178,291,187 |  | 178,960,313 |  | 179,182,643 | 75\% | 0.38\% | 0.50\% |
| 21 | 1,671 |  | 161,306,145 |  | 161,433,220 |  | 161,951,370 | 20\% | 0.08\% | 0.40\% |
| 22 | 1,686 |  | 162,258,404 |  | 162,071,279 |  | 162,745,179 | -38\% | -0.12\% | 0.30\% |
| 23 | 1,303 |  | 126,220,251 |  | 125,984,535 |  | 126,472,692 | -93\% | -0.19\% | 0.20\% |
| 24 | 992 |  | 97,796,458 |  | 97,811,704 |  | 97,894,254 | 16\% | 0.02\% | 0.10\% |
| 25 | 748 |  | 75,820,978 |  | 75,820,978 |  | 75,820,978 |  | 0.00\% | 0.00\% |
| 26 | 528 |  | 55,042,493 |  | 55,042,493 |  | 55,042,493 |  | 0.00\% | 0.00\% |
| 27 | 404 |  | 42,529,683 |  | 42,529,683 |  | 42,529,683 |  | 0.00\% | 0.00\% |
| 28 | 284 |  | 30,525,587 |  | 30,525,587 |  | 30,525,587 |  | 0.00\% | 0.00\% |
| 29 | 198 |  | 21,260,530 |  | 21,260,530 |  | 21,260,530 |  | 0.00\% | 0.00\% |
| 30+ | 156 |  | 16,262,554 |  | 16,262,554 |  | 16,262,554 |  | 0.00\% | 0.00\% |
| Total | 69,411 |  | 5,339,576,868 |  | 5,524,369,232 |  | ,545,855,548 | 90\% | 3.46\% | 3.86\% |

Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION <br> TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS <br> MEN AND WOMEN



NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION OVERTIME PAY EXPERIENCE FOR ALL YEARS MEN AND WOMEN

TABLE 13A 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 13 | \$ | 491,430 | \$ | 20,568 | \$ | 58,972 | 35\% | 4.19\% | 12.00\% |
| 1 | 507 |  | 20,076,056 |  | 1,393,130 |  | 2,409,127 | 58\% | 6.94\% | 12.00\% |
| 2 | 666 |  | 26,354,724 |  | 2,355,579 |  | 3,162,567 | 74\% | 8.94\% | 12.00\% |
| 3 | 1,020 |  | 43,650,817 |  | 4,717,944 |  | 5,238,098 | 90\% | 10.81\% | 12.00\% |
| 4 | 1,673 |  | 85,912,219 |  | 9,217,462 |  | 10,309,466 | 89\% | 10.73\% | 12.00\% |
| 5 | 2,309 |  | 147,630,068 |  | 15,278,848 |  | 17,715,608 | 86\% | 10.35\% | 12.00\% |
| 6 | 2,001 |  | 152,596,805 |  | 20,164,763 |  | 18,311,617 | 110\% | 13.21\% | 12.00\% |
| 7 | 1,581 |  | 125,473,159 |  | 17,962,952 |  | 15,056,779 | 119\% | 14.32\% | 12.00\% |
| 8 | 1,195 |  | 94,136,901 |  | 9,342,429 |  | 11,296,428 | 83\% | 9.92\% | 12.00\% |
| 9 | 1,231 |  | 94,849,045 |  | 9,180,085 |  | 11,381,885 | 81\% | 9.68\% | 12.00\% |
| 10 | 1,554 |  | 124,503,102 |  | 15,689,624 |  | 14,940,372 | 105\% | 12.60\% | 12.00\% |
| 11 | 1,661 |  | 138,819,529 |  | 20,762,893 |  | 16,658,343 | 125\% | 14.96\% | 12.00\% |
| 12 | 1,615 |  | 136,972,711 |  | 16,428,498 |  | 16,436,725 | 100\% | 11.99\% | 12.00\% |
| 13 | 879 |  | 74,824,792 |  | 8,733,723 |  | 8,978,975 | 97\% | 11.67\% | 12.00\% |
| 14 | 742 |  | 61,949,182 |  | 7,702,361 |  | 7,433,902 | 104\% | 12.43\% | 12.00\% |
| 15 | 607 |  | 51,802,617 |  | 5,883,071 |  | 6,216,314 | 95\% | 11.36\% | 12.00\% |
| 16 | 765 |  | 65,877,604 |  | 8,532,451 |  | 7,905,313 | 108\% | 12.95\% | 12.00\% |
| 17 | 773 |  | 68,540,055 |  | 7,599,606 |  | 8,224,807 | 92\% | 11.09\% | 12.00\% |
| 18 | 508 |  | 44,983,395 |  | 7,828,050 |  | 5,398,007 | 145\% | 17.40\% | 12.00\% |
| 19 | 843 |  | 75,438,393 |  | 7,546,265 |  | 9,052,607 | 83\% | 10.00\% | 12.00\% |
| 20 | 780 |  | 71,767,960 |  | 7,824,719 |  | 8,612,155 | 91\% | 10.90\% | 12.00\% |
| 21 | 735 |  | 68,521,580 |  | 10,503,822 |  | 8,222,590 | 128\% | 15.33\% | 12.00\% |
| 22 | 812 |  | 75,959,667 |  | 10,396,289 |  | 9,115,160 | 114\% | 13.69\% | 12.00\% |
| 23 | 597 |  | 56,043,495 |  | 6,768,518 |  | 6,725,219 | 101\% | 12.08\% | 12.00\% |
| 24 | 472 |  | 44,331,562 |  | 5,905,546 |  | 5,319,787 | 111\% | 13.32\% | 12.00\% |
| 25 | 423 |  | 40,255,227 |  | 4,930,132 |  | 4,830,627 | 102\% | 12.25\% | 12.00\% |
| 26 | 293 |  | 27,858,969 |  | 3,880,575 |  | 3,343,076 | 116\% | 13.93\% | 12.00\% |
| 27 | 217 |  | 20,586,407 |  | 2,745,194 |  | 2,470,369 | 111\% | 13.33\% | 12.00\% |
| 28 | 198 |  | 19,378,864 |  | 2,083,775 |  | 2,325,464 | 90\% | 10.75\% | 12.00\% |
| 29 | 133 |  | 13,523,652 |  | 1,457,028 |  | 1,622,838 | 90\% | 10.77\% | 12.00\% |
| 30 | 92 |  | 9,489,728 |  | 1,083,631 |  | 1,138,767 | 95\% | 11.42\% | 12.00\% |
| 31 | 63 |  | 6,670,988 |  | 603,333 |  | 800,519 | 75\% | 9.04\% | 12.00\% |
| 32 | 22 |  | 2,344,916 |  | 283,365 |  | 281,390 | 101\% | 12.08\% | 12.00\% |
| 33 | 11 |  | 1,109,422 |  | 83,244 |  | 133,131 | 63\% | 7.50\% | 12.00\% |
| 34 | 3 |  | 321,991 |  | 22,645 |  | 38,639 | 59\% | 7.03\% | 12.00\% |
| 35 | 9 |  | 983,593 |  | 48,152 |  | 118,031 | 41\% | 4.90\% | 12.00\% |
| 36 | 15 |  | 1,438,415 |  | 80,262 |  | 172,610 | 46\% | 5.58\% | 12.00\% |
| 37 | 16 |  | 1,522,396 |  | 144,847 |  | 182,688 | 79\% | 9.51\% | 12.00\% |
| 38 | 13 |  | 1,290,829 |  | 110,844 |  | 154,900 | 72\% | 8.59\% | 12.00\% |
| 39 | 14 |  | 1,392,078 |  | 65,309 |  | 167,049 | 39\% | 4.69\% | 12.00\% |
| 40 | 6 |  | 609,529 |  | 17,513 |  | 73,144 | 24\% | 2.87\% | 12.00\% |
| 41 | 4 |  | 396,735 |  | 9,467 |  | 47,608 | 20\% | 2.39\% | 12.00\% |
| 42 | 3 |  | 308,438 |  | - |  | 37,013 |  |  | 12.00\% |
| 43 | 1 |  | 79,677 |  | 3,958 |  | 9,561 | 41\% | 4.97\% | 12.00\% |
| 44 | , |  | 83,175 |  | 9,805 |  | 9,981 | 98\% | 11.79\% | 12.00\% |
| 45 | 1 |  | 81,253 |  | 14,800 |  | 9,750 | 152\% | 18.21\% | 12.00\% |
| Total | 27,077 |  | 2,101,233,148 |  | 255,417,075 |  | 252,147,978 | 101\% | 12.16\% | 12.00\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION OVERTIME PAY EXPERIENCE FOR ALL YEARS MEN AND WOMEN

TABLE 13A 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 13 | \$ | 491,430 | \$ | 20,568 | \$ | 58,972 | 35\% | 4.19\% | 12.00\% |
| 1 | 507 |  | 20,076,056 |  | 1,393,130 |  | 2,409,127 | 58\% | 6.94\% | 12.00\% |
| 2 | 666 |  | 26,354,724 |  | 2,355,579 |  | 3,162,567 | 74\% | 8.94\% | 12.00\% |
| 3 | 1,020 |  | 43,650,817 |  | 4,717,944 |  | 5,238,098 | 90\% | 10.81\% | 12.00\% |
| 4 | 1,673 |  | 85,912,219 |  | 9,217,462 |  | 10,309,466 | 89\% | 10.73\% | 12.00\% |
| 5 | 2,309 |  | 147,630,068 |  | 15,278,848 |  | 17,715,608 | 86\% | 10.35\% | 12.00\% |
| 6 | 2,001 |  | 152,596,805 |  | 20,164,763 |  | 18,311,617 | 110\% | 13.21\% | 12.00\% |
| 7 | 1,581 |  | 125,473,159 |  | 17,962,952 |  | 15,056,779 | 119\% | 14.32\% | 12.00\% |
| 8 | 1,195 |  | 94,136,901 |  | 9,342,429 |  | 11,296,428 | 83\% | 9.92\% | 12.00\% |
| 9 | 1,231 |  | 94,849,045 |  | 9,180,085 |  | 11,381,885 | 81\% | 9.68\% | 12.00\% |
| 10 | 1,554 |  | 124,503,102 |  | 15,689,624 |  | 14,940,372 | 105\% | 12.60\% | 12.00\% |
| 11 | 1,661 |  | 138,819,529 |  | 20,762,893 |  | 16,658,343 | 125\% | 14.96\% | 12.00\% |
| 12 | 1,615 |  | 136,972,711 |  | 16,428,498 |  | 16,436,725 | 100\% | 11.99\% | 12.00\% |
| 13 | 879 |  | 74,824,792 |  | 8,733,723 |  | 8,978,975 | 97\% | 11.67\% | 12.00\% |
| 14 | 742 |  | 61,949,182 |  | 7,702,361 |  | 7,433,902 | 104\% | 12.43\% | 12.00\% |
| 15 | 607 |  | 51,802,617 |  | 5,883,071 |  | 6,216,314 | 95\% | 11.36\% | 12.00\% |
| 16 | 765 |  | 65,877,604 |  | 8,532,451 |  | 7,905,313 | 108\% | 12.95\% | 12.00\% |
| 17 | 773 |  | 68,540,055 |  | 7,599,606 |  | 8,224,807 | 92\% | 11.09\% | 12.00\% |
| 18 | 508 |  | 44,983,395 |  | 7,828,050 |  | 5,398,007 | 145\% | 17.40\% | 12.00\% |
| 19 | 843 |  | 75,438,393 |  | 7,546,265 |  | 9,052,607 | 83\% | 10.00\% | 12.00\% |
| 20 | 780 |  | 71,767,960 |  | 7,824,719 |  | 8,612,155 | 91\% | 10.90\% | 12.00\% |
| 21 | 735 |  | 68,521,580 |  | 10,503,822 |  | 8,222,590 | 128\% | 15.33\% | 12.00\% |
| 22 | 812 |  | 75,959,667 |  | 10,396,289 |  | 9,115,160 | 114\% | 13.69\% | 12.00\% |
| 23 | 597 |  | 56,043,495 |  | 6,768,518 |  | 6,725,219 | 101\% | 12.08\% | 12.00\% |
| 24 | 472 |  | 44,331,562 |  | 5,905,546 |  | 5,319,787 | 111\% | 13.32\% | 12.00\% |
| 25 | 423 |  | 40,255,227 |  | 4,930,132 |  | 4,830,627 | 102\% | 12.25\% | 12.00\% |
| 26 | 293 |  | 27,858,969 |  | 3,880,575 |  | 3,343,076 | 116\% | 13.93\% | 12.00\% |
| 27 | 217 |  | 20,586,407 |  | 2,745,194 |  | 2,470,369 | 111\% | 13.33\% | 12.00\% |
| 28 | 198 |  | 19,378,864 |  | 2,083,775 |  | 2,325,464 | 90\% | 10.75\% | 12.00\% |
| 29 | 133 |  | 13,523,652 |  | 1,457,028 |  | 1,622,838 | 90\% | 10.77\% | 12.00\% |
| 30 | 92 |  | 9,489,728 |  | 1,083,631 |  | 1,138,767 | 95\% | 11.42\% | 12.00\% |
| 31 | 63 |  | 6,670,988 |  | 603,333 |  | 800,519 | 75\% | 9.04\% | 12.00\% |
| 32 | 22 |  | 2,344,916 |  | 283,365 |  | 281,390 | 101\% | 12.08\% | 12.00\% |
| 33 | 11 |  | 1,109,422 |  | 83,244 |  | 133,131 | 63\% | 7.50\% | 12.00\% |
| 34 | 3 |  | 321,991 |  | 22,645 |  | 38,639 | 59\% | 7.03\% | 12.00\% |
| 35 | 9 |  | 983,593 |  | 48,152 |  | 118,031 | 41\% | 4.90\% | 12.00\% |
| 36 | 15 |  | 1,438,415 |  | 80,262 |  | 172,610 | 46\% | 5.58\% | 12.00\% |
| 37 | 16 |  | 1,522,396 |  | 144,847 |  | 182,688 | 79\% | 9.51\% | 12.00\% |
| 38 | 13 |  | 1,290,829 |  | 110,844 |  | 154,900 | 72\% | 8.59\% | 12.00\% |
| 39 | 14 |  | 1,392,078 |  | 65,309 |  | 167,049 | 39\% | 4.69\% | 12.00\% |
| 40 | 6 |  | 609,529 |  | 17,513 |  | 73,144 | 24\% | 2.87\% | 12.00\% |
| 41 | 4 |  | 396,735 |  | 9,467 |  | 47,608 | 20\% | 2.39\% | 12.00\% |
| 42 | 3 |  | 308,438 |  | - |  | 37,013 |  |  | 12.00\% |
| 43 | 1 |  | 79,677 |  | 3,958 |  | 9,561 | 41\% | 4.97\% | 12.00\% |
| 44 | 1 |  | 83,175 |  | 9,805 |  | 9,981 | 98\% | 11.79\% | 12.00\% |
| 45 | 1 |  | 81,253 |  | 14,800 |  | 9,750 | 152\% | 18.21\% | 12.00\% |
| Total | 27,077 |  | 2,101,233,148 |  | 255,417,075 |  | 252,147,978 | 101\% | 12.16\% | 12.00\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION OVERTIME PAY EXPERIENCE BEFORE SERVICE RETIREMENT MEN AND WOMEN

TABLE 13B 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 1 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 2 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 3 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 4 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 5 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 6 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 7 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 8 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 9 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 10 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 11 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 12 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 13 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 14 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 15 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 16 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 17 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 18 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 19 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 20 | 277 | \$ | 24,560,855 | \$ | 2,085,768 | \$ | 2,947,303 | 71\% | 8.49\% | 12.00\% |
| 21 | 113 |  | 10,153,897 |  | 1,465,712 |  | 1,218,468 | 120\% | 14.43\% | 12.00\% |
| 22 | 104 |  | 9,376,363 |  | 1,297,517 |  | 1,125,164 | 115\% | 13.84\% | 12.00\% |
| 23 | 78 |  | 7,190,285 |  | 848,689 |  | 862,834 | 98\% | 11.80\% | 12.00\% |
| 24 | 57 |  | 5,235,313 |  | 697,299 |  | 628,238 | 111\% | 13.32\% | 12.00\% |
| 25 | 85 |  | 7,917,631 |  | 922,479 |  | 950,116 | 97\% | 11.65\% | 12.00\% |
| 26 | 58 |  | 5,519,206 |  | 817,177 |  | 662,305 | 123\% | 14.81\% | 12.00\% |
| 27 | 41 |  | 4,083,617 |  | 527,381 |  | 490,034 | 108\% | 12.91\% | 12.00\% |
| 28 | 31 |  | 3,020,644 |  | 359,677 |  | 362,477 | 99\% | 11.91\% | 12.00\% |
| 29 | 29 |  | 2,950,640 |  | 313,526 |  | 354,077 | 89\% | 10.63\% | 12.00\% |
| 30 | 41 |  | 4,176,663 |  | 561,069 |  | 501,200 | 112\% | 13.43\% | 12.00\% |
| 31 | 14 |  | 1,389,368 |  | 138,297 |  | 166,724 | 83\% | 9.95\% | 12.00\% |
| 32 | 7 |  | 812,696 |  | 63,868 |  | 97,524 | 65\% | 7.86\% | 12.00\% |
| 33 | 4 |  | 483,897 |  | 57,663 |  | 58,068 | 99\% | 11.92\% | 12.00\% |
| 34 | 2 |  | 215,463 |  | 34,970 |  | 25,856 | 135\% | 16.23\% | 12.00\% |
| 35 | 2 |  | 179,425 |  | 33,479 |  | 21,531 | 155\% | 18.66\% | 12.00\% |
| 36 | 4 |  | 544,549 |  | 26,437 |  | 65,346 | 40\% | 4.85\% | 12.00\% |
| 37 | 3 |  | 332,934 |  | 7,005 |  | 39,952 | 18\% | 2.10\% | 12.00\% |
| 38 | 2 |  | 164,680 |  | 7,801 |  | 19,762 | 39\% | 4.74\% | 12.00\% |
| 39 | 0 |  | 164,680 |  | 7,801 |  | 19,62 |  | 0.00\% | 12.00\% |
| 40 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 41 | 1 |  | 123,139 |  | 27,617 |  | 14,777 | 187\% | 22.43\% | 12.00\% |
| 42 | 1 |  | 89,622 |  | 3,839 |  | 10,755 | 36\% | 4.28\% | 12.00\% |
| 43 | 0 |  | , |  | ,83 |  | - |  | 0.00\% | 12.00\% |
| 44 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 45 | 0 |  | - - |  | - - |  | - |  | 0.00\% | 12.00\% |
| Total | 954 |  | 88,520,889 |  | 10,297,270 |  | 10,622,507 | 97\% | 11.63\% | 12.00\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION OVERTIME PAY EXPERIENCE BEFORE SERVICE RETIREMENT MEN AND WOMEN

TABLE 13B 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 1 | 0 |  | - |  | - |  |  |  | 0.00\% | 12.00\% |
| 2 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 3 | 0 |  | - |  | - |  |  |  | 0.00\% | 12.00\% |
| 4 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 5 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 6 | 0 |  | - |  | - |  |  |  | 0.00\% | 12.00\% |
| 7 | 0 |  | - |  | - |  |  |  | 0.00\% | 12.00\% |
| 8 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 9 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 10 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 11 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 12 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 13 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 14 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 15 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 16 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 17 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 18 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 19 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 20 | 277 | \$ |  | \$ | $2,085,768$ | \$ |  |  | 8.49\% | 12.00\% |
| 21 | 113 |  | 10,153,897 |  | 1,465,712 |  | 1,218,468 | 120\% | 14.43\% | 12.00\% |
| 22 | 104 |  | 9,376,363 |  | 1,297,517 |  | 1,125,164 | 115\% | 13.84\% | 12.00\% |
| 23 | 78 |  | 7,190,285 |  | 848,689 |  | 862,834 | 98\% | 11.80\% | 12.00\% |
| 24 | 57 |  | 5,235,313 |  | 697,299 |  | 628,238 | 111\% | 13.32\% | 12.00\% |
| 25 | 85 |  | 7,917,631 |  | 922,479 |  | 950,116 | 97\% | 11.65\% | 12.00\% |
| 26 | 58 |  | 5,519,206 |  | 817,177 |  | 662,305 | 123\% | 14.81\% | 12.00\% |
| 27 | 41 |  | 4,083,617 |  | 527,381 |  | 490,034 | 108\% | 12.91\% | 12.00\% |
| 28 | 31 |  | 3,020,644 |  | 359,677 |  | 362,477 | 99\% | 11.91\% | 12.00\% |
| 29 | 29 |  | 2,950,640 |  | 313,526 |  | 354,077 | 89\% | 10.63\% | 12.00\% |
| 30 | 41 |  | 4,176,663 |  | 561,069 |  | 501,200 | 112\% | 13.43\% | 12.00\% |
| 31 | 14 |  | 1,389,368 |  | 138,297 |  | 166,724 | 83\% | 9.95\% | 12.00\% |
| 32 | 7 |  | 812,696 |  | 63,868 |  | 97,524 | 65\% | 7.86\% | 12.00\% |
| 33 | 4 |  | 483,897 |  | 57,663 |  | 58,068 | 99\% | 11.92\% | 12.00\% |
| 34 | 2 |  | 215,463 |  | 34,970 |  | 25,856 | 135\% | 16.23\% | 12.00\% |
| 35 | 2 |  | 179,425 |  | 33,479 |  | 21,531 | 155\% | 18.66\% | 12.00\% |
| 36 | 4 |  | 544,549 |  | 26,437 |  | 65,346 | 40\% | 4.85\% | 12.00\% |
| 37 | 3 |  | 332,934 |  | 7,005 |  | 39,952 | 18\% | 2.10\% | 12.00\% |
| 38 | 2 |  | 164,680 |  | 7,801 |  | 19,762 | 39\% | 4.74\% | 12.00\% |
| 39 | 0 |  | - |  | 7,801 |  | 19,762 |  | 0.00\% | 12.00\% |
| 40 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 41 |  |  | 123,139 |  | 27,617 |  | 14,777 | 187\% | 22.43\% | 12.00\% |
| 42 | , |  | 89,622 |  | 3,839 |  | 10,755 | 36\% | 4.28\% | 12.00\% |
| 43 | 0 |  | ,62 |  | - |  | , |  | 0.00\% | 12.00\% |
| 44 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| 45 | 0 |  | - |  | - |  | - |  | 0.00\% | 12.00\% |
| Total | 954 |  | 88,520,889 |  | 10,297,270 |  | 10,622,507 | 97\% | 11.63\% | 12.00\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION

## OVERTIME PAY EXPERIENCE BEFORE DISABLED RETIREMENT

 MEN AND WOMENTABLE 13C 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 1 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 2 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 3 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 4 |  | \$ | 50,257 | \$ | 1,519 | \$ | 6,031 | 25\% | 3.02\% | 12.00\% |
| 5 | 6 |  | 366,438 |  | 16,898 |  | 43,973 | 38\% | 4.61\% | 12.00\% |
| 6 | 4 |  | 274,046 |  | 1,365 |  | 32,886 | 4\% | 0.50\% | 12.00\% |
| 7 | 3 |  | 225,417 |  | 17,621 |  | 27,050 | 65\% | 7.82\% | 12.00\% |
| 8 | 5 |  | 361,919 |  | 10,101 |  | 43,430 | 23\% | 2.79\% | 12.00\% |
| 9 | 3 |  | 211,202 |  | 4,154 |  | 25,344 | 16\% | 1.97\% | 12.00\% |
| 10 | 13 |  | 950,917 |  | 32,474 |  | 114,110 | 28\% | 3.42\% | 12.00\% |
| 11 | 18 |  | 1,318,607 |  | 48,754 |  | 158,233 | 31\% | 3.70\% | 12.00\% |
| 12 | 18 |  | 1,344,452 |  | 39,935 |  | 161,334 | 25\% | 2.97\% | 12.00\% |
| 13 | 10 |  | 818,499 |  | 24,036 |  | 98,220 | 24\% | 2.94\% | 12.00\% |
| 14 | 7 |  | 531,119 |  | 47,508 |  | 63,734 | 75\% | 8.94\% | 12.00\% |
| 15 | 7 |  | 510,487 |  | 9,605 |  | 61,258 | 16\% | 1.88\% | 12.00\% |
| 16 | 12 |  | 934,453 |  | 65,470 |  | 112,134 | 58\% | 7.01\% | 12.00\% |
| 17 | 10 |  | 762,868 |  | 19,164 |  | 91,544 | 21\% | 2.51\% | 12.00\% |
| 18 | 1 |  | 73,047 |  | 104 |  | 8,766 | 1\% | 0.14\% | 12.00\% |
| 19 | 9 |  | 691,361 |  | 20,295 |  | 82,963 | 24\% | 2.94\% | 12.00\% |
| 20 | 22 |  | 1,737,704 |  | 65,233 |  | 208,524 | 31\% | 3.75\% | 12.00\% |
| 21 | 10 |  | 879,672 |  | 70,394 |  | 105,561 | 67\% | 8.00\% | 12.00\% |
| 22 | 13 |  | 1,124,732 |  | 46,712 |  | 134,968 | 35\% | 4.15\% | 12.00\% |
| 23 | 5 |  | 393,121 |  | 12,634 |  | 47,174 | 27\% | 3.21\% | 12.00\% |
| 24 | 6 |  | 550,854 |  | 34,940 |  | 66,102 | 53\% | 6.34\% | 12.00\% |
| 25 | 7 |  | 681,580 |  | 27,789 |  | 81,790 | 34\% | 4.08\% | 12.00\% |
| 26 | 3 |  | 224,179 |  | 5,335 |  | 26,902 | 20\% | 2.38\% | 12.00\% |
| 27 | 6 |  | 603,417 |  | 50,023 |  | 72,410 | 69\% | 8.29\% | 12.00\% |
| 28 | 0 |  | 603,41 |  | 50,023 |  | 72,10 |  |  | 12.00\% |
| 29 | 3 |  | 283,388 |  | 23,730 |  | 34,007 | 70\% | 8.37\% | 12.00\% |
| 30 | 1 |  | 100,405 |  | 10,019 |  | 12,049 | 83\% | 9.98\% | 12.00\% |
| 31 | 2 |  | 180,386 |  | 10,019 |  | 21,646 |  |  | 12.00\% |
| 32 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 33 | 1 |  | 82,910 |  | 10,812 |  | 9,949 | 109\% | 13.04\% | 12.00\% |
| 34 | 0 |  | 82,910 |  | 10,8 |  | 9,9 |  |  | 12.00\% |
| 35 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 36 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 37 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 38 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 39 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 40 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 41 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 42 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 43 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| Total | 206 |  | 16,267,437 |  | 716,624 |  | 1,952,092 | $37 \%$ | 4.41\% | 12.00\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION

## OVERTIME PAY EXPERIENCE BEFORE DISABLED RETIREMENT

## MEN AND WOMEN

TABLE 13C 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 1 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 2 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 3 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 4 | 1 |  | 50,257 |  | 1,519 | \$ | 6,031 | 25\% | 3.02\% | 12.00\% |
| 5 | 6 |  | 366,438 |  | 16,898 |  | 43,973 | 38\% | 4.61\% | 12.00\% |
| 6 | 4 |  | 274,046 |  | 1,365 |  | 32,886 | 4\% | 0.50\% | 12.00\% |
| 7 | 3 |  | 225,417 |  | 17,621 |  | 27,050 | 65\% | 7.82\% | 12.00\% |
| 8 | 5 |  | 361,919 |  | 10,101 |  | 43,430 | 23\% | 2.79\% | 12.00\% |
| 9 | 3 |  | 211,202 |  | 4,154 |  | 25,344 | 16\% | 1.97\% | 12.00\% |
| 10 | 13 |  | 950,917 |  | 32,474 |  | 114,110 | 28\% | 3.42\% | 12.00\% |
| 11 | 18 |  | 1,318,607 |  | 48,754 |  | 158,233 | 31\% | 3.70\% | 12.00\% |
| 12 | 18 |  | 1,344,452 |  | 39,935 |  | 161,334 | 25\% | 2.97\% | 12.00\% |
| 13 | 10 |  | 818,499 |  | 24,036 |  | 98,220 | 24\% | 2.94\% | 12.00\% |
| 14 | 7 |  | 531,119 |  | 47,508 |  | 63,734 | 75\% | 8.94\% | 12.00\% |
| 15 | 7 |  | 510,487 |  | 9,605 |  | 61,258 | 16\% | 1.88\% | 12.00\% |
| 16 | 12 |  | 934,453 |  | 65,470 |  | 112,134 | 58\% | 7.01\% | 12.00\% |
| 17 | 10 |  | 762,868 |  | 19,164 |  | 91,544 | 21\% | 2.51\% | 12.00\% |
| 18 | 1 |  | 73,047 |  | 104 |  | 8,766 | 1\% | 0.14\% | 12.00\% |
| 19 | 9 |  | 691,361 |  | 20,295 |  | 82,963 | 24\% | 2.94\% | 12.00\% |
| 20 | 22 |  | 1,737,704 |  | 65,233 |  | 208,524 | 31\% | 3.75\% | 12.00\% |
| 21 | 10 |  | 879,672 |  | 70,394 |  | 105,561 | 67\% | 8.00\% | 12.00\% |
| 22 | 13 |  | 1,124,732 |  | 46,712 |  | 134,968 | 35\% | 4.15\% | 12.00\% |
| 23 | 5 |  | 393,121 |  | 12,634 |  | 47,174 | 27\% | 3.21\% | 12.00\% |
| 24 | 6 |  | 550,854 |  | 34,940 |  | 66,102 | 53\% | 6.34\% | 12.00\% |
| 25 | 7 |  | 681,580 |  | 27,789 |  | 81,790 | 34\% | 4.08\% | 12.00\% |
| 26 | 3 |  | 224,179 |  | 5,335 |  | 26,902 | 20\% | 2.38\% | 12.00\% |
| 27 | 6 |  | 603,417 |  | 50,023 |  | 72,410 | 69\% | 8.29\% | 12.00\% |
| 28 | 0 |  | 603,41 |  | 50,023 |  | , 1 |  |  | 12.00\% |
| 29 | 3 |  | 283,388 |  | 23,730 |  | 34,007 | 70\% | 8.37\% | 12.00\% |
| 30 | 1 |  | 100,405 |  | 10,019 |  | 12,049 | 83\% | 9.98\% | 12.00\% |
| 31 | 2 |  | 180,386 |  | 10,019 |  | 21,646 |  |  | 12.00\% |
| 32 | 0 |  | - |  | - |  | , |  |  | 12.00\% |
| 33 | 1 |  | 82,910 |  | 10,812 |  | 9,949 | 109\% | 13.04\% | 12.00\% |
| 34 | 0 |  | 82,910 |  | , |  | 9, |  |  | 12.00\% |
| 35 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 36 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 37 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 38 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 39 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 40 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 41 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 42 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 43 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| Total | 206 |  | 16,267,437 |  | 716,624 |  | 1,952,092 | $37 \%$ | 4.41\% | 12.00\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION OVERTIME PAY EXPERIENCE FOR ALL YEARS MEN AND WOMEN

TABLE 13A
10-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 784 | \$ | 24,155,020 | \$ | 298,971 | \$ | 2,898,602 | 10\% | 1.24\% | 12.00\% |
| 1 | 3,060 |  | 115,894,382 |  | 9,198,963 |  | 13,907,326 | 66\% | 7.94\% | 12.00\% |
| 2 | 2,871 |  | 119,980,566 |  | 10,832,140 |  | 14,397,668 | 75\% | 9.03\% | 12.00\% |
| 3 | 3,799 |  | 168,458,730 |  | 17,794,857 |  | 20,215,048 | 88\% | 10.56\% | 12.00\% |
| 4 | 4,268 |  | 208,998,739 |  | 24,073,108 |  | 25,079,849 | 96\% | 11.52\% | 12.00\% |
| 5 | 4,263 |  | 250,729,327 |  | 28,591,621 |  | 30,087,519 | 95\% | 11.40\% | 12.00\% |
| 6 | 4,111 |  | 285,038,482 |  | 36,320,231 |  | 34,204,618 | 106\% | 12.74\% | 12.00\% |
| 7 | 3,675 |  | 267,006,472 |  | 33,860,100 |  | 32,040,777 | 106\% | 12.68\% | 12.00\% |
| 8 | 3,293 |  | 239,174,803 |  | 24,723,258 |  | 28,700,976 | 86\% | 10.34\% | 12.00\% |
| 9 | 2,544 |  | 184,331,476 |  | 19,465,909 |  | 22,119,777 | 88\% | 10.56\% | 12.00\% |
| 10 | 2,843 |  | 208,672,819 |  | 26,579,681 |  | 25,040,738 | 106\% | 12.74\% | 12.00\% |
| 11 | 2,855 |  | 218,153,331 |  | 31,371,171 |  | 26,178,400 | 120\% | 14.38\% | 12.00\% |
| 12 | 2,536 |  | 201,574,779 |  | 24,601,146 |  | 24,188,973 | 102\% | 12.20\% | 12.00\% |
| 13 | 2,337 |  | 174,005,854 |  | 21,041,977 |  | 20,880,703 | 101\% | 12.09\% | 12.00\% |
| 14 | 2,469 |  | 175,943,698 |  | 25,402,674 |  | 21,113,244 | 120\% | 14.44\% | 12.00\% |
| 15 | 2,449 |  | 181,535,191 |  | 24,591,327 |  | 21,784,223 | 113\% | 13.55\% | 12.00\% |
| 16 | 2,626 |  | 196,876,154 |  | 27,939,070 |  | 23,625,139 | 118\% | 14.19\% | 12.00\% |
| 17 | 2,803 |  | 216,293,955 |  | 28,908,302 |  | 25,955,275 | 111\% | 13.37\% | 12.00\% |
| 18 | 3,020 |  | 233,369,534 |  | 33,674,200 |  | 28,004,344 | 120\% | 14.43\% | 12.00\% |
| 19 | 2,838 |  | 224,225,931 |  | 28,803,205 |  | 26,907,112 | 107\% | 12.85\% | 12.00\% |
| 20 | 1,986 |  | 164,430,900 |  | 21,662,970 |  | 19,731,708 | 110\% | 13.17\% | 12.00\% |
| 21 | 1,698 |  | 146,080,681 |  | 20,857,259 |  | 17,529,682 | 119\% | 14.28\% | 12.00\% |
| 22 | 1,683 |  | 144,603,337 |  | 20,192,935 |  | 17,352,400 | 116\% | 13.96\% | 12.00\% |
| 23 | 1,329 |  | 114,769,456 |  | 15,465,005 |  | 13,772,335 | 112\% | 13.47\% | 12.00\% |
| 24 | 1,002 |  | 87,816,857 |  | 12,068,182 |  | 10,538,023 | 115\% | 13.74\% | 12.00\% |
| 25 | 764 |  | 69,036,728 |  | 8,975,350 |  | 8,284,407 | 108\% | 13.00\% | 12.00\% |
| 26 | 541 |  | 50,191,736 |  | 6,566,922 |  | 6,023,008 | 109\% | 13.08\% | 12.00\% |
| 27 | 410 |  | 38,407,648 |  | 4,473,547 |  | 4,608,918 | 97\% | 11.65\% | 12.00\% |
| 28 | 289 |  | 27,714,871 |  | 3,017,720 |  | 3,325,785 | 91\% | 10.89\% | 12.00\% |
| 29 | 204 |  | 19,564,405 |  | 2,194,441 |  | 2,347,729 | 93\% | 11.22\% | 12.00\% |
| 30 | 157 |  | 14,630,262 |  | 1,857,750 |  | 1,755,631 | 106\% | 12.70\% | 12.00\% |
| 31 | 120 |  | 11,421,098 |  | 1,251,722 |  | 1,370,532 | 91\% | 10.96\% | 12.00\% |
| 32 | 70 |  | 6,314,246 |  | 784,768 |  | 757,709 | 104\% | 12.43\% | 12.00\% |
| 33 | 58 |  | 5,171,998 |  | 484,318 |  | 620,640 | 78\% | 9.36\% | 12.00\% |
| 34 | 43 |  | 3,962,029 |  | 294,606 |  | 475,444 | 62\% | 7.44\% | 12.00\% |
| 35 | 39 |  | 3,753,937 |  | 211,593 |  | 450,472 | 47\% | 5.64\% | 12.00\% |
| 36 | 32 |  | 2,980,496 |  | 158,460 |  | 357,660 | 44\% | 5.32\% | 12.00\% |
| 37 | 25 |  | 2,250,889 |  | 201,580 |  | 270,107 | 75\% | 8.96\% | 12.00\% |
| 38 | 21 |  | 1,996,658 |  | 153,801 |  | 239,599 | 64\% | 7.70\% | 12.00\% |
| 39 | 17 |  | 1,628,502 |  | 91,103 |  | 195,420 | 47\% | 5.59\% | 12.00\% |
| 40 | 8 |  | 748,229 |  | 43,781 |  | 89,788 | 49\% | 5.85\% | 12.00\% |
| 41 | 7 |  | 631,230 |  | 29,560 |  | 75,748 | 39\% | 4.68\% | 12.00\% |
| 42 | 5 |  | 468,504 |  | 11,974 |  | 56,220 | 21\% | 2.56\% | 12.00\% |
| 43 | 1 |  | 79,677 |  | 3,958 |  | 9,561 | 41\% | 4.97\% | 12.00\% |
| 44 | 1 |  | 83,175 |  | 9,805 |  | 9,981 | 98\% | 11.79\% | 12.00\% |
| 45 | 1 |  | 81,253 |  | 14,800 |  | 9,750 | 152\% | 18.21\% | 12.00\% |
| Total | 69,955 |  | 4,813,238,047 |  | 599,149,821 |  | 577,588,566 | 104\% | 12.45\% | 12.00\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION OVERTIME PAY EXPERIENCE FOR ALL YEARS MEN AND WOMEN

TABLE 13A

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 784 | \$ | 24,155,020 | \$ | 298,971 | \$ | 2,898,602 | 10\% | 1.24\% | 12.00\% |
| 1 | 3,060 |  | 115,894,382 |  | 9,198,963 |  | 13,907,326 | 66\% | 7.94\% | 12.00\% |
| 2 | 2,871 |  | 119,980,566 |  | 10,832,140 |  | 14,397,668 | 75\% | 9.03\% | 12.00\% |
| 3 | 3,799 |  | 168,458,730 |  | 17,794,857 |  | 20,215,048 | 88\% | 10.56\% | 12.00\% |
| 4 | 4,268 |  | 208,998,739 |  | 24,073,108 |  | 25,079,849 | 96\% | 11.52\% | 12.00\% |
| 5 | 4,263 |  | 250,729,327 |  | 28,591,621 |  | 30,087,519 | 95\% | 11.40\% | 12.00\% |
| 6 | 4,111 |  | 285,038,482 |  | 36,320,231 |  | 34,204,618 | 106\% | 12.74\% | 12.00\% |
| 7 | 3,675 |  | 267,006,472 |  | 33,860,100 |  | 32,040,777 | 106\% | 12.68\% | 12.00\% |
| 8 | 3,293 |  | 239,174,803 |  | 24,723,258 |  | 28,700,976 | 86\% | 10.34\% | 12.00\% |
| 9 | 2,544 |  | 184,331,476 |  | 19,465,909 |  | 22,119,777 | 88\% | 10.56\% | 12.00\% |
| 10 | 2,843 |  | 208,672,819 |  | 26,579,681 |  | 25,040,738 | 106\% | 12.74\% | 12.00\% |
| 11 | 2,855 |  | 218,153,331 |  | 31,371,171 |  | 26,178,400 | 120\% | 14.38\% | 12.00\% |
| 12 | 2,536 |  | 201,574,779 |  | 24,601,146 |  | 24,188,973 | 102\% | 12.20\% | 12.00\% |
| 13 | 2,337 |  | 174,005,854 |  | 21,041,977 |  | 20,880,703 | 101\% | 12.09\% | 12.00\% |
| 14 | 2,469 |  | 175,943,698 |  | 25,402,674 |  | 21,113,244 | 120\% | 14.44\% | 12.00\% |
| 15 | 2,449 |  | 181,535,191 |  | 24,591,327 |  | 21,784,223 | 113\% | 13.55\% | 12.00\% |
| 16 | 2,626 |  | 196,876,154 |  | 27,939,070 |  | 23,625,139 | 118\% | 14.19\% | 12.00\% |
| 17 | 2,803 |  | 216,293,955 |  | 28,908,302 |  | 25,955,275 | 111\% | 13.37\% | 12.00\% |
| 18 | 3,020 |  | 233,369,534 |  | 33,674,200 |  | 28,004,344 | 120\% | 14.43\% | 12.00\% |
| 19 | 2,838 |  | 224,225,931 |  | 28,803,205 |  | 26,907,112 | 107\% | 12.85\% | 12.00\% |
| 20 | 1,986 |  | 164,430,900 |  | 21,662,970 |  | 19,731,708 | 110\% | 13.17\% | 12.00\% |
| 21 | 1,698 |  | 146,080,681 |  | 20,857,259 |  | 17,529,682 | 119\% | 14.28\% | 12.00\% |
| 22 | 1,683 |  | 144,603,337 |  | 20,192,935 |  | 17,352,400 | 116\% | 13.96\% | 12.00\% |
| 23 | 1,329 |  | 114,769,456 |  | 15,465,005 |  | 13,772,335 | 112\% | 13.47\% | 12.00\% |
| 24 | 1,002 |  | 87,816,857 |  | 12,068,182 |  | 10,538,023 | 115\% | 13.74\% | 12.00\% |
| 25 | 764 |  | 69,036,728 |  | 8,975,350 |  | 8,284,407 | 108\% | 13.00\% | 12.00\% |
| 26 | 541 |  | 50,191,736 |  | 6,566,922 |  | 6,023,008 | 109\% | 13.08\% | 12.00\% |
| 27 | 410 |  | 38,407,648 |  | 4,473,547 |  | 4,608,918 | 97\% | 11.65\% | 12.00\% |
| 28 | 289 |  | 27,714,871 |  | 3,017,720 |  | 3,325,785 | 91\% | 10.89\% | 12.00\% |
| 29 | 204 |  | 19,564,405 |  | 2,194,441 |  | 2,347,729 | 93\% | 11.22\% | 12.00\% |
| 30 | 157 |  | 14,630,262 |  | 1,857,750 |  | 1,755,631 | 106\% | 12.70\% | 12.00\% |
| 31 | 120 |  | 11,421,098 |  | 1,251,722 |  | 1,370,532 | 91\% | 10.96\% | 12.00\% |
| 32 | 70 |  | 6,314,246 |  | 784,768 |  | 757,709 | 104\% | 12.43\% | 12.00\% |
| 33 | 58 |  | 5,171,998 |  | 484,318 |  | 620,640 | 78\% | 9.36\% | 12.00\% |
| 34 | 43 |  | 3,962,029 |  | 294,606 |  | 475,444 | 62\% | 7.44\% | 12.00\% |
| 35 | 39 |  | 3,753,937 |  | 211,593 |  | 450,472 | 47\% | 5.64\% | 12.00\% |
| 36 | 32 |  | 2,980,496 |  | 158,460 |  | 357,660 | 44\% | 5.32\% | 12.00\% |
| 37 | 25 |  | 2,250,889 |  | 201,580 |  | 270,107 | 75\% | 8.96\% | 12.00\% |
| 38 | 21 |  | 1,996,658 |  | 153,801 |  | 239,599 | 64\% | 7.70\% | 12.00\% |
| 39 | 17 |  | 1,628,502 |  | 91,103 |  | 195,420 | 47\% | 5.59\% | 12.00\% |
| 40 | 8 |  | 748,229 |  | 43,781 |  | 89,788 | 49\% | 5.85\% | 12.00\% |
| 41 | 7 |  | 631,230 |  | 29,560 |  | 75,748 | 39\% | 4.68\% | 12.00\% |
| 42 | 5 |  | 468,504 |  | 11,974 |  | 56,220 | 21\% | 2.56\% | 12.00\% |
| 43 | 1 |  | 79,677 |  | 3,958 |  | 9,561 | 41\% | 4.97\% | 12.00\% |
| 44 | 1 |  | 83,175 |  | 9,805 |  | 9,981 | 98\% | 11.79\% | 12.00\% |
| 45 | 1 |  | 81,253 |  | 14,800 |  | 9,750 | 152\% | 18.21\% | 12.00\% |
| Total | 69,955 |  | 4,813,238,047 |  | 599,149,821 |  | 577,588,566 | 104\% | 12.45\% | 12.00\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION OVERTIME PAY EXPERIENCE BEFORE SERVICE RETIREMENT MEN AND WOMEN

TABLE 13B
10-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 1 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 2 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 3 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 4 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 5 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 6 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 7 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 8 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 9 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 10 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 11 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 12 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 13 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 14 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 15 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 16 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 17 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 18 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 19 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 20 | 1,327 | \$ | 99,406,650 | \$ | 13,423,276 | \$ | 11,928,798 | 113\% | 13.50\% | 12.00\% |
| 21 | 293 |  | 24,033,591 |  | 3,274,114 |  | 2,884,031 | 114\% | 13.62\% | 12.00\% |
| 22 | 252 |  | 20,527,801 |  | 2,849,198 |  | 2,463,336 | 116\% | 13.88\% | 12.00\% |
| 23 | 166 |  | 14,005,563 |  | 1,958,082 |  | 1,680,668 | 117\% | 13.98\% | 12.00\% |
| 24 | 161 |  | 13,264,506 |  | 1,995,981 |  | 1,591,741 | 125\% | 15.05\% | 12.00\% |
| 25 | 161 |  | 14,068,465 |  | 1,715,061 |  | 1,688,216 | 102\% | 12.19\% | 12.00\% |
| 26 | 100 |  | 9,067,292 |  | 1,288,026 |  | 1,088,075 | 118\% | 14.21\% | 12.00\% |
| 27 | 69 |  | 6,549,519 |  | 830,609 |  | 785,942 | 106\% | 12.68\% | 12.00\% |
| 28 | 45 |  | 4,122,227 |  | 518,544 |  | 494,667 | 105\% | 12.58\% | 12.00\% |
| 29 | 51 |  | 4,570,612 |  | 593,546 |  | 548,473 | 108\% | 12.99\% | 12.00\% |
| 30 | 70 |  | 6,302,208 |  | 948,995 |  | 756,265 | 125\% | 15.06\% | 12.00\% |
| 31 | 37 |  | 3,008,264 |  | 516,672 |  | 360,992 | 143\% | 17.18\% | 12.00\% |
| 32 | 19 |  | 2,082,255 |  | 169,149 |  | 249,871 | 68\% | 8.12\% | 12.00\% |
| 33 | 32 |  | 2,586,920 |  | 390,572 |  | 310,430 | 126\% | 15.10\% | 12.00\% |
| 34 | 14 |  | 1,229,543 |  | 211,884 |  | 147,545 | 144\% | 17.23\% | 12.00\% |
| 35 | 8 |  | 666,690 |  | 122,868 |  | 80,003 | 154\% | 18.43\% | 12.00\% |
| 36 | 12 |  | 1,251,332 |  | 94,470 |  | 150,160 | 63\% | 7.55\% | 12.00\% |
| 37 | 9 |  | 998,784 |  | 32,327 |  | 119,854 | 27\% | 3.24\% | 12.00\% |
| 38 | 5 |  | 481,582 |  | 32,297 |  | 57,790 | 56\% | 6.71\% | 12.00\% |
| 39 | 3 |  | 297,417 |  | 11,311 |  | 35,690 | $32 \%$ | 3.80\% | 12.00\% |
| 40 | 1 |  | 102,018 |  | - |  | 12,242 |  |  | 12.00\% |
| 41 | 3 |  | 233,479 |  | 48,143 |  | 28,018 | 172\% | 20.62\% | 12.00\% |
| 42 | 1 |  | 89,622 |  | 3,839 |  | 10,755 | 36\% | 4.28\% | 12.00\% |
| 43 | 1 |  | 87,629 |  | 10,368 |  | 10,516 | 99\% | 11.83\% | 12.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| Total | 2,840 |  | 229,033,970 |  | 31,039,332 |  | 27,484,076 | 113\% | 13.55\% | 12.00\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION OVERTIME PAY EXPERIENCE BEFORE SERVICE RETIREMENT MEN AND WOMEN

TABLE 13B

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 1 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 2 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 3 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 4 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 5 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 6 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 7 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 8 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 9 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 10 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 11 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 12 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 13 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 14 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 15 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 16 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 17 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 18 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 19 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 20 | 1,327 | \$ | 99,406,650 | \$ | 13,423,276 | \$ | 11,928,798 | 113\% | 13.50\% | 12.00\% |
| 21 | 293 |  | 24,033,591 |  | 3,274,114 |  | 2,884,031 | 114\% | 13.62\% | 12.00\% |
| 22 | 252 |  | 20,527,801 |  | 2,849,198 |  | 2,463,336 | 116\% | 13.88\% | 12.00\% |
| 23 | 166 |  | 14,005,563 |  | 1,958,082 |  | 1,680,668 | 117\% | 13.98\% | 12.00\% |
| 24 | 161 |  | 13,264,506 |  | 1,995,981 |  | 1,591,741 | 125\% | 15.05\% | 12.00\% |
| 25 | 161 |  | 14,068,465 |  | 1,715,061 |  | 1,688,216 | 102\% | 12.19\% | 12.00\% |
| 26 | 100 |  | 9,067,292 |  | 1,288,026 |  | 1,088,075 | 118\% | 14.21\% | 12.00\% |
| 27 | 69 |  | 6,549,519 |  | 830,609 |  | 785,942 | 106\% | 12.68\% | 12.00\% |
| 28 | 45 |  | 4,122,227 |  | 518,544 |  | 494,667 | 105\% | 12.58\% | 12.00\% |
| 29 | 51 |  | 4,570,612 |  | 593,546 |  | 548,473 | 108\% | 12.99\% | 12.00\% |
| 30 | 70 |  | 6,302,208 |  | 948,995 |  | 756,265 | 125\% | 15.06\% | 12.00\% |
| 31 | 37 |  | 3,008,264 |  | 516,672 |  | 360,992 | 143\% | 17.18\% | 12.00\% |
| 32 | 19 |  | 2,082,255 |  | 169,149 |  | 249,871 | 68\% | 8.12\% | 12.00\% |
| 33 | 32 |  | 2,586,920 |  | 390,572 |  | 310,430 | 126\% | 15.10\% | 12.00\% |
| 34 | 14 |  | 1,229,543 |  | 211,884 |  | 147,545 | 144\% | 17.23\% | 12.00\% |
| 35 | 8 |  | 666,690 |  | 122,868 |  | 80,003 | 154\% | 18.43\% | 12.00\% |
| 36 | 12 |  | 1,251,332 |  | 94,470 |  | 150,160 | 63\% | 7.55\% | 12.00\% |
| 37 | 9 |  | 998,784 |  | 32,327 |  | 119,854 | 27\% | 3.24\% | 12.00\% |
| 38 | 5 |  | 481,582 |  | 32,297 |  | 57,790 | 56\% | 6.71\% | 12.00\% |
| 39 | 3 |  | 297,417 |  | 11,311 |  | 35,690 | 32\% | 3.80\% | 12.00\% |
| 40 | 1 |  | 102,018 |  | - |  | 12,242 |  |  | 12.00\% |
| 41 | 3 |  | 233,479 |  | 48,143 |  | 28,018 | 172\% | 20.62\% | 12.00\% |
| 42 | 1 |  | 89,622 |  | 3,839 |  | 10,755 | 36\% | 4.28\% | 12.00\% |
| 43 | 1 |  | 87,629 |  | 10,368 |  | 10,516 | 99\% | 11.83\% | 12.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| Total | 2,840 |  | 229,033,970 |  | 31,039,332 |  | 27,484,076 | 113\% | 13.55\% | 12.00\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION OVERTIME PAY EXPERIENCE BEFORE DISABLED RETIREMENT MEN AND WOMEN

## TABLE 13C

10-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  |  | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 1 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 2 | 3 | \$ | 139,044 | \$ | 11,750 | \$ | 16,685 | 70\% | 8.45\% | 12.00\% |
| 3 | 2 |  | 77,381 |  | 9,006 |  | 9,286 | 97\% | 11.64\% | 12.00\% |
| 4 | 1 |  | 50,257 |  | 1,519 |  | 6,031 | 25\% | 3.02\% | 12.00\% |
| 5 | 12 |  | 707,454 |  | 24,519 |  | 84,895 | 29\% | 3.47\% | 12.00\% |
| 6 | 9 |  | 606,362 |  | 19,391 |  | 72,763 | 27\% | 3.20\% | 12.00\% |
| 7 | 12 |  | 799,266 |  | 38,654 |  | 95,912 | 40\% | 4.84\% | 12.00\% |
| 8 | 12 |  | 796,816 |  | 26,729 |  | 95,618 | 28\% | 3.35\% | 12.00\% |
| 9 | 8 |  | 505,830 |  | 18,928 |  | 60,700 | 31\% | 3.74\% | 12.00\% |
| 10 | 20 |  | 1,344,594 |  | 43,541 |  | 161,351 | 27\% | 3.24\% | 12.00\% |
| 11 | 30 |  | 2,065,954 |  | 72,327 |  | 247,915 | 29\% | 3.50\% | 12.00\% |
| 12 | 28 |  | 1,966,862 |  | 51,461 |  | 236,023 | 22\% | 2.62\% | 12.00\% |
| 13 | 26 |  | 1,797,009 |  | 54,595 |  | 215,641 | 25\% | 3.04\% | 12.00\% |
| 14 | 18 |  | 1,238,580 |  | 64,107 |  | 148,630 | 43\% | 5.18\% | 12.00\% |
| 15 | 29 |  | 1,926,425 |  | 93,714 |  | 231,171 | 41\% | 4.86\% | 12.00\% |
| 16 | 41 |  | 2,764,764 |  | 145,977 |  | 331,772 | 44\% | 5.28\% | 12.00\% |
| 17 | 37 |  | 2,646,539 |  | 99,567 |  | 317,585 | 31\% | 3.76\% | 12.00\% |
| 18 | 29 |  | 2,057,887 |  | 136,794 |  | 246,946 | 55\% | 6.65\% | 12.00\% |
| 19 | 28 |  | 1,997,806 |  | 111,653 |  | 239,737 | 47\% | 5.59\% | 12.00\% |
| 20 | 53 |  | 3,889,429 |  | 209,980 |  | 466,732 | 45\% | 5.40\% | 12.00\% |
| 21 | 27 |  | 2,090,530 |  | 135,977 |  | 250,864 | 54\% | 6.50\% | 12.00\% |
| 22 | 33 |  | 2,561,996 |  | 147,797 |  | 307,439 | 48\% | 5.77\% | 12.00\% |
| 23 | 22 |  | 1,657,624 |  | 73,564 |  | 198,915 | 37\% | 4.44\% | 12.00\% |
| 24 | 13 |  | 996,272 |  | 43,641 |  | 119,553 | 37\% | 4.38\% | 12.00\% |
| 25 | 11 |  | 932,629 |  | 33,922 |  | 111,916 | 30\% | 3.64\% | 12.00\% |
| 26 | 5 |  | 365,210 |  | 14,928 |  | 43,825 | 34\% | 4.09\% | 12.00\% |
| 27 | 6 |  | 603,417 |  | 50,023 |  | 72,410 | 69\% | 8.29\% | 12.00\% |
| 28 | 2 |  | 131,616 |  | 4,800 |  | 15,794 | 30\% | 3.65\% | 12.00\% |
| 29 | 4 |  | 395,464 |  | 40,297 |  | 47,456 | 85\% | 10.19\% | 12.00\% |
| 30 | 2 |  | 155,411 |  | 11,853 |  | 18,649 | 64\% | 7.63\% | 12.00\% |
| 31 | 2 |  | 180,386 |  | - |  | 21,646 |  |  | 12.00\% |
| 32 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 33 | 1 |  | 82,910 |  | 10,812 |  | 9,949 | 109\% | 13.04\% | 12.00\% |
| 34 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 35 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 36 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 37 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 38 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 39 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 40 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 41 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 42 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 43 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| Total | 526 |  | 37,531,726 |  | 1,801,826 |  | ,503,807 | 40\% | 4.80\% | 12.00\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION OVERTIME PAY EXPERIENCE BEFORE DISABLED RETIREMENT MEN AND WOMEN

## TABLE 13C

10-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  |  | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 1 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 2 | 3 | \$ | 139,044 | \$ | 11,750 | \$ | 16,685 | 70\% | 8.45\% | 12.00\% |
| 3 | 2 |  | 77,381 |  | 9,006 |  | 9,286 | 97\% | 11.64\% | 12.00\% |
| 4 | 1 |  | 50,257 |  | 1,519 |  | 6,031 | 25\% | 3.02\% | 12.00\% |
| 5 | 12 |  | 707,454 |  | 24,519 |  | 84,895 | 29\% | 3.47\% | 12.00\% |
| 6 | 9 |  | 606,362 |  | 19,391 |  | 72,763 | 27\% | 3.20\% | 12.00\% |
| 7 | 12 |  | 799,266 |  | 38,654 |  | 95,912 | 40\% | 4.84\% | 12.00\% |
| 8 | 12 |  | 796,816 |  | 26,729 |  | 95,618 | 28\% | 3.35\% | 12.00\% |
| 9 | 8 |  | 505,830 |  | 18,928 |  | 60,700 | 31\% | 3.74\% | 12.00\% |
| 10 | 20 |  | 1,344,594 |  | 43,541 |  | 161,351 | 27\% | 3.24\% | 12.00\% |
| 11 | 30 |  | 2,065,954 |  | 72,327 |  | 247,915 | 29\% | 3.50\% | 12.00\% |
| 12 | 28 |  | 1,966,862 |  | 51,461 |  | 236,023 | 22\% | 2.62\% | 12.00\% |
| 13 | 26 |  | 1,797,009 |  | 54,595 |  | 215,641 | 25\% | 3.04\% | 12.00\% |
| 14 | 18 |  | 1,238,580 |  | 64,107 |  | 148,630 | 43\% | 5.18\% | 12.00\% |
| 15 | 29 |  | 1,926,425 |  | 93,714 |  | 231,171 | 41\% | 4.86\% | 12.00\% |
| 16 | 41 |  | 2,764,764 |  | 145,977 |  | 331,772 | 44\% | 5.28\% | 12.00\% |
| 17 | 37 |  | 2,646,539 |  | 99,567 |  | 317,585 | 31\% | 3.76\% | 12.00\% |
| 18 | 29 |  | 2,057,887 |  | 136,794 |  | 246,946 | 55\% | 6.65\% | 12.00\% |
| 19 | 28 |  | 1,997,806 |  | 111,653 |  | 239,737 | 47\% | 5.59\% | 12.00\% |
| 20 | 53 |  | 3,889,429 |  | 209,980 |  | 466,732 | 45\% | 5.40\% | 12.00\% |
| 21 | 27 |  | 2,090,530 |  | 135,977 |  | 250,864 | 54\% | 6.50\% | 12.00\% |
| 22 | 33 |  | 2,561,996 |  | 147,797 |  | 307,439 | 48\% | 5.77\% | 12.00\% |
| 23 | 22 |  | 1,657,624 |  | 73,564 |  | 198,915 | 37\% | 4.44\% | 12.00\% |
| 24 | 13 |  | 996,272 |  | 43,641 |  | 119,553 | 37\% | 4.38\% | 12.00\% |
| 25 | 11 |  | 932,629 |  | 33,922 |  | 111,916 | 30\% | 3.64\% | 12.00\% |
| 26 | 5 |  | 365,210 |  | 14,928 |  | 43,825 | 34\% | 4.09\% | 12.00\% |
| 27 | 6 |  | 603,417 |  | 50,023 |  | 72,410 | 69\% | 8.29\% | 12.00\% |
| 28 | 2 |  | 131,616 |  | 4,800 |  | 15,794 | 30\% | 3.65\% | 12.00\% |
| 29 | 4 |  | 395,464 |  | 40,297 |  | 47,456 | 85\% | 10.19\% | 12.00\% |
| 30 | 2 |  | 155,411 |  | 11,853 |  | 18,649 | 64\% | 7.63\% | 12.00\% |
| 31 | 2 |  | 180,386 |  | - |  | 21,646 |  |  | 12.00\% |
| 32 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 33 | 1 |  | 82,910 |  | 10,812 |  | 9,949 | 109\% | 13.04\% | 12.00\% |
| 34 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 35 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 36 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 37 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 38 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 39 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 40 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 41 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 42 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 43 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 12.00\% |
| Total | 526 |  | 37,531,726 |  | 1,801,826 |  | ,503,807 | 40\% | 4.80\% | 12.00\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - SANITATION

## OVERTIME PAY EXPERIENCE FOR ALL YEARS

MEN AND WOMEN


| Table Number | Table Type | NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS EXPERIENCE STUDY RESULTS OVERVIEW |  |  |  |  | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 4-YEAR PERIOD ENDING 6/30/2013* |  | 10-YEAR PERIOD ENDING 6/30/2013* |  |  |  |
|  |  | Expected | Average Number of Decrements per Year | Ratio of Actual to |  | Average Number of Decrements per Year |  |
|  |  |  |  | Expected | Proposed |  |  |
|  | Service Retiree Mortality |  |  |  |  |  | The proposed assumption is based on actual plan experience. |
| 1A | Men | 76\% | 61 | 84\% | 90\% | 58 | Future mortality improvements will be projected using scale MP- |
| 1B | Women | 91\% | 11 | 96\% | 99\% | 9 | 2014. The following NYCERS groups were combined for this |
| 1 C | Men \& Women | 78\% | 72 | 85\% | 92\% | 68 | study: General, Transit, Sanitation, Corrections, and TBTA. |
| 1 D | By Year |  |  |  |  |  |  |
|  | Disabled Retiree Mortality |  |  |  |  |  | The proposed assumption is based on actual plan experience. |
| 2A | Men | 72\% | 18 | 76\% | 59\% | 17 | Future mortality improvements will be projected using scale MP- |
| 2B | Women | 70\% | 4 | 108\% | 61\% | 5 | 2014. The following NYCERS groups were combined for this |
| 2 C | Men \& Women | 72\% | 22 | 81\% | 81\% | 22 | study: General, Transit, Sanitation, Corrections, and TBTA. |
| 2D | By Year |  |  |  |  |  |  |
|  | Active Member Withdrawals |  |  |  |  |  | Recent experience has been volatile, but is in line with the current |
| 3A | Men | 113\% | 56 | 121\% | 121\% | 59 | assumption. No change is recommended. |
| 3B | Women | 98\% | 41 | 115\% | 115\% | 48 |  |
| 3 C | Men \& Women | 106\% | 97 | 118\% | 118\% | 107 |  |
| 3D | By Year |  |  |  |  |  |  |
|  | Active Member Service Retirements <br> In 1st Year of Eligibility |  |  |  |  |  | Generally, members have been delaying retirements, consistent with national trends. The current assumption reflects long-term |
| 4A | Total | 49\% | 164 | 63\% | 74\% | 257 | anticpated retirement patterns. |
| 4 C | Elected | 48\% | 96 | 36\% | 42\% | 93 |  |
|  | Mandated | 50\% | 68 | 107\% | 129\% | 165 |  |
|  | In 2nd Year of Eligibility |  |  |  |  |  |  |
| 5A | Total | 82\% | 68 | 146\% | 156\% | 101 |  |
| 5B | Elected | 92\% | 51 | 153\% | 154\% | 80 |  |
| 5 C | Mandated | 63\% | 17 | 123\% | 165\% | 21 |  |
|  | After 2nd Year of Eligibility |  |  |  |  |  |  |
| 6A | Total | 58\% | 157 | 64\% | 88\% | 100 |  |
| 6B | Elected | 64\% | 137 | 66\% | 90\% | 81 |  |
| 6 C | Mandated | 36\% | 20 | 57\% | 80\% | 20 |  |
| 6D | By Year |  |  |  |  |  |  |
|  | Reduced Service Retirements |  |  |  |  |  | Due to limited experience, we recommend using the NYCERS |
| 7A | Total | 0\% | 0 | 1250\% | 833\% | 0 | General group's reduced retirement proposed assumption. |
| 7 B | By Year |  |  |  |  |  |  |



NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS
RETIREMENT ASSUMPTIONS AND EXPERIENCE
FOR THE FOUR-YEAR PERIOD ENDING 6/30/2013




NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS
OVERTIME ASSUMPTIONS AND EXPERIENCE
FOR THE TEN-YEAR PERIOD ENDING 6/30/2013


## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

|  | TABLE 1A |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013Expected Deaths |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 16 | 0.000000 | 0.1597\% | 0.1800\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 65 | 0.000000 | 0.2033\% | 0.1964\% | 0.1 | 0.1 | 0\% | 0\% |
| 43 | 0 | 168 | 0.000000 | 0.2442\% | 0.2140\% | 0.4 | 0.4 | 0\% | 0\% |
| 44 | 3 | 297 | 0.010101 | 0.2825\% | 0.2329\% | 0.8 | 0.7 | 358\% | 434\% |
| 45 | 0 | 474 | 0.000000 | 0.3182\% | 0.2531\% | 1.5 | 1.2 | 0\% | 0\% |
| 46 | 1 | 676 | 0.001479 | 0.3473\% | 0.2744\% | 2.3 | 1.9 | 43\% | 54\% |
| 47 | 1 | 832 | 0.001202 | 0.3729\% | 0.2968\% | 3.1 | 2.5 | 32\% | 40\% |
| 48 | 0 | 992 | 0.000000 | 0.3954\% | 0.3206\% | 3.9 | 3.2 | 0\% | 0\% |
| 49 | 2 | 1,034 | 0.001934 | 0.4146\% | 0.3455\% | 4.3 | 3.6 | 47\% | 56\% |
| 50 | 3 | 1,030 | 0.002913 | 0.4307\% | 0.3720\% | 4.4 | 3.8 | 68\% | 78\% |
| 51 | 5 | 1,061 | 0.004713 | 0.4875\% | 0.4006\% | 5.2 | 4.3 | 97\% | 118\% |
| 52 | 8 | 1,012 | 0.007905 | 0.5460\% | 0.4320\% | 5.5 | 4.4 | 145\% | 183\% |
| 53 | 1 | 973 | 0.001028 | 0.6110\% | 0.4669\% | 5.9 | 4.5 | 17\% | 22\% |
| 54 | 5 | 942 | 0.005308 | 0.6785\% | 0.5058\% | 6.4 | 4.8 | 78\% | 105\% |
| 55 | 3 | 905 | 0.003315 | 0.7545\% | 0.5494\% | 6.8 | 5.0 | 44\% | 60\% |
| 56 | 8 | 872 | 0.009174 | 0.8125\% | 0.5983\% | 7.1 | 5.2 | 113\% | 153\% |
| 57 | 2 | 868 | 0.002304 | 0.8712\% | 0.6533\% | 7.6 | 5.7 | 26\% | 35\% |
| 58 | 4 | 860 | 0.004651 | 0.9309\% | 0.7148\% | 8.0 | 6.1 | 50\% | 65\% |
| 59 | 5 | 802 | 0.006234 | 0.9834\% | 0.7836\% | 7.9 | 6.3 | 63\% | 80\% |
| 60 | 7 | 735 | 0.009524 | 1.0360\% | 0.8603\% | 7.6 | 6.3 | 92\% | 111\% |
| 61 | 4 | 655 | 0.006107 | 1.1527\% | 0.9456\% | 7.6 | 6.2 | 53\% | 65\% |
| 62 | 6 | 594 | 0.010101 | 1.2582\% | 1.0393\% | 7.5 | 6.2 | 80\% | 97\% |
| 63 | 7 | 584 | 0.011986 | 1.3720\% | 1.1423\% | 8.0 | 6.7 | 87\% | 105\% |
| 64 | 5 | 530 | 0.009434 | 1.4726\% | 1.2554\% | 7.8 | 6.7 | 64\% | 75\% |
| 65 | 4 | 441 | 0.009070 | 1.5702\% | 1.3799\% | 6.9 | 6.1 | 58\% | 66\% |
| 66 | 3 | 380 | 0.007895 | 1.7139\% | 1.5166\% | 6.5 | 5.8 | 46\% | 52\% |
| 67 | 3 | 324 | 0.009259 | 1.8447\% | 1.6669\% | 6.0 | 5.4 | 50\% | 56\% |
| 68 | 6 | 291 | 0.020619 | 1.9597\% | 1.8320\% | 5.7 | 5.3 | 105\% | 113\% |
| 69 | 6 | 290 | 0.020690 | 2.0894\% | 2.0136\% | 6.1 | 5.8 | 99\% | 103\% |
| 70 | 7 | 297 | 0.023569 | 2.2013\% | 2.2131\% | 6.5 | 6.6 | 107\% | 106\% |
| 71 | 3 | 302 | 0.009934 | 2.3984\% | 2.4324\% | 7.2 | 7.3 | 41\% | 41\% |
| 72 | 4 | 299 | 0.013378 | 2.5999\% | 2.6735\% | 7.8 | 8.0 | 51\% | 50\% |
| 73 | 7 | 265 | 0.026415 | 2.8053\% | 2.9384\% | 7.4 | 7.8 | 94\% | 90\% |
| 74 | 3 | 236 | 0.012712 | 3.0149\% | 3.2295\% | 7.1 | 7.6 | 42\% | 39\% |
| 75 | 3 | 193 | 0.015544 | 3.2551\% | 3.5496\% | 6.3 | 6.9 | 48\% | 44\% |
| 76 | 5 | 170 | 0.029412 | 3.7527\% | 3.9013\% | 6.4 | 6.6 | 78\% | 75\% |
| 77 | 4 | 170 | 0.023529 | 4.2954\% | 4.2879\% | 7.3 | 7.3 | 55\% | 55\% |
| 78 | 7 | 136 | 0.051471 | 4.8575\% | 4.7128\% | 6.6 | 6.4 | 106\% | 109\% |
| 79 | 6 | 136 | 0.044118 | 5.4395\% | 5.1798\% | 7.4 | 7.0 | 81\% | 85\% |
| 80 | 14 | 126 | 0.111111 | 6.0416\% | 5.6931\% | 7.6 | 7.2 | 184\% | 195\% |
| 81 | 6 | 107 | 0.056075 | 6.6973\% | 6.2572\% | 7.2 | 6.7 | 84\% | 90\% |
| 82 | 4 | 102 | 0.039216 | 7.3631\% | 6.8772\% | 7.5 | 7.0 | 53\% | 57\% |
| 83 | 5 | 89 | 0.056180 | 7.9745\% | 7.5587\% | 7.1 | 6.7 | 70\% | 74\% |
| 84 | 9 | 83 | 0.108434 | 8.6555\% | 8.3077\% | 7.2 | 6.9 | 125\% | 131\% |
| 85 | 4 | 74 | 0.054054 | 9.2719\% | 9.1310\% | 6.9 | 6.8 | 58\% | 59\% |
| 86 | 10 | 72 | 0.138889 | 10.4648\% | 10.0358\% | 7.5 | 7.2 | 133\% | 138\% |
| 87 | 4 | 60 | 0.066667 | 11.7953\% | 11.0303\% | 7.1 | 6.6 | 57\% | 60\% |
| 88 | 7 | 57 | 0.122807 | 13.1900\% | 12.1233\% | 7.5 | 6.9 | 93\% | 101\% |
| 89 | 8 | 48 | 0.166667 | 14.5331\% | 13.3246\% | 7.0 | 6.4 | 115\% | 125\% |
| 90 | 3 | 40 | 0.075000 | 16.0483\% | 14.6450\% | 6.4 | 5.9 | 47\% | 51\% |
| 91 | 2 | 33 | 0.060606 | 17.8244\% | 16.0962\% | 5.9 | 5.3 | 34\% | 38\% |
| 92 | 7 | 21 | 0.333333 | 19.7255\% | 17.6912\% | 4.1 | 3.7 | 169\% | 188\% |
| 93 | 4 | 12 | 0.333333 | 21.4517\% | 19.4443\% | 2.6 | 2.3 | 155\% | 171\% |
| 94 | 1 | 9 | 0.111111 | 23.1923\% | 21.3710\% | 2.1 | 1.9 | 48\% | 52\% |
| 95 | 2 | 6 | 0.333333 | 25.3168\% | 23.4887\% | 1.5 | 1.4 | 132\% | 142\% |
| 96 | 1 | 3 | 0.333333 | 27.1711\% | 25.8163\% | 0.8 | 0.8 | 123\% | 129\% |
| 97 | 1 | 2 | 0.500000 | 28.9556\% | 28.3745\% | 0.6 | 0.6 | 173\% | 176\% |
| 98 | 0 | 0 | N/A | 30.9964\% | 31.1862\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 32.6018\% | 34.2765\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 243 | 21,851 |  |  |  | 317.7 | 285.8 | 76\% | 85\% |
| 100 or more | 0 | 0 | N/A | 37.1685\% | 45.5092\% | 0 | 0 | 0\% | 0\% |
| Total | 243 | 21,851 |  |  |  | 317.7 | 285.8 | 76\% | 85\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS MORTALITY EXPERIENCE OF SERVICE RETIREES WOMEN

|  | TABLE 1B |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013Expected Deaths |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 9 | 0.000000 | 0.0783\% | 0.1485\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 53 | 0.000000 | 0.0868\% | 0.1594\% | 0.0 | 0.1 | 0\% | 0\% |
| 43 | 0 | 110 | 0.000000 | 0.0975\% | 0.1702\% | 0.1 | 0.2 | 0\% | 0\% |
| 44 | 0 | 166 | 0.000000 | 0.1105\% | 0.1810\% | 0.2 | 0.3 | 0\% | 0\% |
| 45 | 0 | 255 | 0.000000 | 0.1251\% | 0.1918\% | 0.3 | 0.5 | 0\% | 0\% |
| 46 | 0 | 343 | 0.000000 | 0.1417\% | 0.2024\% | 0.5 | 0.7 | 0\% | 0\% |
| 47 | 2 | 415 | 0.004819 | 0.1603\% | 0.2130\% | 0.7 | 0.9 | 301\% | 226\% |
| 48 | 2 | 480 | 0.004167 | 0.1817\% | 0.2231\% | 0.9 | 1.1 | 229\% | 187\% |
| 49 | 0 | 516 | 0.000000 | 0.2048\% | 0.2329\% | 1.1 | 1.2 | 0\% | 0\% |
| 50 |  | 525 | 0.001905 | 0.2307\% | 0.2471\% | 1.2 | 1.3 | 83\% | 77\% |
| 51 | 4 | 518 | 0.007722 | 0.2622\% | 0.2656\% | 1.4 | 1.4 | 295\% | 291\% |
| 52 | 2 | 482 | 0.004149 | 0.2990\% | 0.2885\% | 1.4 | 1.4 | 139\% | 144\% |
| 53 | 1 | 453 | 0.002208 | 0.3392\% | 0.3158\% | 1.5 | 1.4 | 65\% | 70\% |
| 54 | 1 | 430 | 0.002326 | 0.3835\% | 0.3474\% | 1.6 | 1.5 | 61\% | 67\% |
| 55 | 1 | 441 | 0.002268 | 0.4321\% | 0.3835\% | 1.9 | 1.7 | 52\% | 59\% |
| 56 | 2 | 396 | 0.005051 | 0.5051\% | 0.4239\% | 2.0 | 1.7 | 100\% | 119\% |
| 57 | 1 | 353 | 0.002833 | 0.5811\% | 0.4687\% | 2.1 | 1.7 | 49\% | 60\% |
| 58 | 2 | 314 | 0.006369 | 0.6577\% | 0.5178\% | 2.1 | 1.6 | 97\% | 123\% |
| 59 | 2 | 234 | 0.008547 | 0.7386\% | 0.5714\% | 1.7 | 1.3 | 116\% | 150\% |
| 60 | 0 | 173 | 0.000000 | 0.8236\% | 0.6294\% | 1.4 | 1.1 | 0\% | 0\% |
| 61 | 1 | 131 | 0.007634 | 0.9145\% | 0.6918\% | 1.2 | 0.9 | 83\% | 110\% |
| 62 | 0 | 102 | 0.000000 | 0.9912\% | 0.7604\% | 1.0 | 0.8 | 0\% | 0\% |
| 63 | 0 | 79 | 0.000000 | 1.0664\% | 0.8357\% | 0.8 | 0.7 | 0\% | 0\% |
| 64 | 0 | 71 | 0.000000 | 1.1462\% | 0.9186\% | 0.8 | 0.7 | 0\% | 0\% |
| 65 | 1 | 65 | 0.015385 | 1.2310\% | 1.0096\% | 0.8 | 0.7 | 125\% | 152\% |
| 66 | 0 | 55 | 0.000000 | 1.3217\% | 1.1097\% | 0.7 | 0.6 | 0\% | 0\% |
| 67 | 1 | 49 | 0.020408 | 1.4235\% | 1.2197\% | 0.7 | 0.6 | 143\% | 167\% |
| 68 | 0 | 40 | 0.000000 | 1.5303\% | 1.3406\% | 0.6 | 0.5 | 0\% | 0\% |
| 69 | 0 | 37 | 0.000000 | 1.6051\% | 1.4735\% | 0.6 | 0.5 | 0\% | 0\% |
| 70 | 2 | 34 | 0.058824 | 1.6732\% | 1.6195\% | 0.6 | 0.6 | 352\% | 363\% |
| 71 | 0 | 28 | 0.000000 | 1.8431\% | 1.7800\% | 0.5 | 0.5 | 0\% | 0\% |
| 72 | 0 | 22 | 0.000000 | 2.0222\% | 1.9565\% | 0.4 | 0.4 | 0\% | 0\% |
| 73 | 0 | 21 | 0.000000 | 2.1798\% | 2.1504\% | 0.5 | 0.5 | 0\% | 0\% |
| 74 | 0 | 17 | 0.000000 | 2.3496\% | 2.3635\% | 0.4 | 0.4 | 0\% | 0\% |
| 75 | 0 | 17 | 0.000000 | 2.4953\% | 2.5978\% | 0.4 | 0.4 | 0\% | 0\% |
| 76 | 0 | 17 | 0.000000 | 2.8182\% | 2.8553\% | 0.5 | 0.5 | 0\% | 0\% |
| 77 | 1 | 14 | 0.071429 | 3.1667\% | 3.1383\% | 0.4 | 0.4 | 226\% | 228\% |
| 78 | 0 | 14 | 0.000000 | 3.4923\% | 3.4494\% | 0.5 | 0.5 | 0\% | 0\% |
| 79 | 0 | 13 | 0.000000 | 3.8179\% | 3.7913\% | 0.5 | 0.5 | 0\% | 0\% |
| 80 | 2 | 11 | 0.181818 | 4.1435\% | 4.1671\% | 0.5 | 0.5 | 439\% | 436\% |
| 81 | 0 | 12 | 0.000000 | 4.6586\% | 4.5802\% | 0.6 | 0.5 | 0\% | 0\% |
| 82 | 0 | 14 | 0.000000 | 5.1835\% | 5.0341\% | 0.7 | 0.7 | 0\% | 0\% |
| 83 | 1 | 16 | 0.062500 | 5.7181\% | 5.5331\% | 0.9 | 0.9 | 109\% | 113\% |
| 84 | 3 | 20 | 0.150000 | 6.2626\% | 6.0816\% | 1.3 | 1.2 | 240\% | 247\% |
| 85 | 1 | 18 | 0.055556 | 6.8720\% | 6.6844\% | 1.2 | 1.2 | 81\% | 83\% |
| 86 | 1 | 18 | 0.055556 | 7.9002\% | 7.3469\% | 1.4 | 1.3 | 70\% | 76\% |
| 87 | 1 | 16 | 0.062500 | 8.9443\% | 8.0752\% | 1.4 | 1.3 | 70\% | 77\% |
| 88 | 3 | 14 | 0.214286 | 9.9247\% | 8.8756\% | 1.4 | 1.2 | 216\% | 241\% |
| 89 | 0 | 9 | 0.000000 | 10.9930\% | 9.7553\% | 1.0 | 0.9 | 0\% | 0\% |
| 90 | 0 | 6 | 0.000000 | 11.9814\% | 10.7223\% | 0.7 | 0.6 | 0\% | 0\% |
| 91 | 1 | 8 | 0.125000 | 13.6802\% | 11.7851\% | 1.1 | 0.9 | 91\% | 106\% |
| 92 | 1 | 6 | 0.166667 | 15.3234\% | 12.9532\% | 0.9 | 0.8 | 109\% | 129\% |
| 93 | 1 | 4 | 0.250000 | 17.0656\% | 14.2372\% | 0.7 | 0.6 | 146\% | 176\% |
| 94 | 2 | 3 | 0.666667 | 18.5767\% | 15.6484\% | 0.6 | 0.5 | 359\% | 426\% |
| 95 | 0 | 0 | N/A | 20.0298\% | 17.1994\% | 0 | 0 | 0\% | 0\% |
| 96 | 0 | 0 | N/A | 21.1824\% | 18.9042\% | 0 | 0 | 0\% | 0\% |
| 97 | 0 | 0 | N/A | 22.3611\% | 20.7780\% | 0 | 0 | 0\% | 0\% |
| 98 | 0 | 0 | N/A | 23.0718\% | 22.8376\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 23.4718\% | 25.1012\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 44 | 7,667 |  |  |  | 48.5 | 44.8 | 91\% | 98\% |
| 100 or more | 0 | 0 | N/A | 25.4498\% | 33.3297\% | 0 | 0 | 0\% | 0\% |
| Total | 44 | 7,667 |  |  |  | 48.5 | 44.8 | 91\% | 98\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS MORTALITY EXPERIENCE OF SERVICE RETIREES MEN AND WOMEN

|  | TABLE 1C |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 25 | 0.000000 | 0.1304\% | 0.1687\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 118 | 0.000000 | 0.1510\% | 0.1798\% | 0.2 | 0.2 | 0\% | 0\% |
| 43 | 0 | 278 | 0.000000 | 0.1862\% | 0.1967\% | 0.5 | 0.5 | 0\% | 0\% |
| 44 | 3 | 463 | 0.006479 | 0.2208\% | 0.2143\% | 1.0 | 1.0 | 293\% | 302\% |
| 45 | 0 | 729 | 0.000000 | 0.2507\% | 0.2316\% | 1.8 | 1.7 | 0\% | 0\% |
| 46 | 1 | 1,019 | 0.000981 | 0.2781\% | 0.2502\% | 2.8 | 2.5 | 35\% | 39\% |
| 47 | 3 | 1,247 | 0.002406 | 0.3021\% | 0.2689\% | 3.8 | 3.4 | 80\% | 89\% |
| 48 | 2 | 1,472 | 0.001359 | 0.3257\% | 0.2888\% | 4.8 | 4.3 | 42\% | 47\% |
| 49 | 2 | 1,550 | 0.001290 | 0.3448\% | 0.3080\% | 5.3 | 4.8 | 37\% | 42\% |
| 50 | 4 | 1,555 | 0.002572 | 0.3632\% | 0.3298\% | 5.6 | 5.1 | 71\% | 78\% |
| 51 | 9 | 1,579 | 0.005700 | 0.4136\% | 0.3563\% | 6.5 | 5.6 | 138\% | 160\% |
| 52 | 10 | 1,494 | 0.006693 | 0.4663\% | 0.3857\% | 7.0 | 5.8 | 144\% | 174\% |
| 53 | 2 | 1,426 | 0.001403 | 0.5247\% | 0.4189\% | 7.5 | 6.0 | 27\% | 33\% |
| 54 | 6 | 1,372 | 0.004373 | 0.5860\% | 0.4562\% | 8.0 | 6.3 | 75\% | 96\% |
| 55 | 4 | 1,346 | 0.002972 | 0.6489\% | 0.4950\% | 8.7 | 6.7 | 46\% | 60\% |
| 56 | 10 | 1,268 | 0.007886 | 0.7165\% | 0.5438\% | 9.1 | 6.9 | 110\% | 145\% |
| 57 | 3 | 1,221 | 0.002457 | 0.7873\% | 0.5999\% | 9.6 | 7.3 | 31\% | 41\% |
| 58 | 6 | 1,174 | 0.005111 | 0.8578\% | 0.6621\% | 10.1 | 7.8 | 60\% | 77\% |
| 59 | 7 | 1,036 | 0.006757 | 0.9281\% | 0.7357\% | 9.6 | 7.6 | 73\% | 92\% |
| 60 | 7 | 908 | 0.007709 | 0.9955\% | 0.8163\% | 9.0 | 7.4 | 77\% | 94\% |
| 61 | 5 | 786 | 0.006361 | 1.1130\% | 0.9033\% | 8.7 | 7.1 | 57\% | 70\% |
| 62 | 6 | 696 | 0.008621 | 1.2191\% | 0.9984\% | 8.5 | 6.9 | 71\% | 86\% |
| 63 | 7 | 663 | 0.010558 | 1.3356\% | 1.1057\% | 8.9 | 7.3 | 79\% | 95\% |
| 64 | 5 | 601 | 0.008319 | 1.4340\% | 1.2156\% | 8.6 | 7.3 | 58\% | 68\% |
| 65 | 5 | 506 | 0.009881 | 1.5266\% | 1.3323\% | 7.7 | 6.7 | 65\% | 74\% |
| 66 | 3 | 435 | 0.006897 | 1.6643\% | 1.4651\% | 7.2 | 6.4 | 41\% | 47\% |
| 67 | 4 | 373 | 0.010724 | 1.7894\% | 1.6081\% | 6.7 | 6.0 | 60\% | 67\% |
| 68 | 6 | 331 | 0.018127 | 1.9078\% | 1.7726\% | 6.3 | 5.9 | 95\% | 102\% |
| 69 | 6 | 327 | 0.018349 | 2.0346\% | 1.9525\% | 6.7 | 6.4 | 90\% | 94\% |
| 70 | 9 | 331 | 0.027190 | 2.1471\% | 2.1521\% | 7.1 | 7.1 | 127\% | 126\% |
| 71 | 3 | 330 | 0.009091 | 2.3513\% | 2.3771\% | 7.8 | 7.8 | 39\% | 38\% |
| 72 | 4 | 321 | 0.012461 | 2.5603\% | 2.6243\% | 8.2 | 8.4 | 49\% | 47\% |
| 73 | 7 | 286 | 0.024476 | 2.7594\% | 2.8805\% | 7.9 | 8.2 | 89\% | 85\% |
| 74 | 3 | 253 | 0.011858 | 2.9702\% | 3.1714\% | 7.5 | 8.0 | 40\% | 37\% |
| 75 | 3 | 210 | 0.014286 | 3.1936\% | 3.4725\% | 6.7 | 7.3 | 45\% | 41\% |
| 76 | 5 | 187 | 0.026738 | 3.6677\% | 3.8062\% | 6.9 | 7.1 | 73\% | 70\% |
| 77 | 5 | 184 | 0.027174 | 4.2095\% | 4.2004\% | 7.7 | 7.7 | 65\% | 65\% |
| 78 | 7 | 150 | 0.046667 | 4.7301\% | 4.5949\% | 7.1 | 6.9 | 99\% | 102\% |
| 79 | 6 | 149 | 0.040268 | 5.2980\% | 5.0586\% | 7.9 | 7.5 | 76\% | 80\% |
| 80 | 16 | 137 | 0.116788 | 5.8892\% | 5.5705\% | 8.1 | 7.6 | 198\% | 210\% |
| 81 | 6 | 119 | 0.050420 | 6.4917\% | 6.0881\% | 7.7 | 7.2 | 78\% | 83\% |
| 82 | 4 | 116 | 0.034483 | 7.1000\% | 6.6548\% | 8.2 | 7.7 | 49\% | 52\% |
| 83 | 6 | 105 | 0.057143 | 7.6307\% | 7.2501\% | 8.0 | 7.6 | 75\% | 79\% |
| 84 | 12 | 103 | 0.116505 | 8.1909\% | 7.8755\% | 8.4 | 8.1 | 142\% | 148\% |
| 85 | 5 | 92 | 0.054348 | 8.8024\% | 8.6523\% | 8.1 | 8.0 | 62\% | 63\% |
| 86 | 11 | 90 | 0.122222 | 9.9519\% | 9.4980\% | 9.0 | 8.5 | 123\% | 129\% |
| 87 | 5 | 76 | 0.065789 | 11.1951\% | 10.4081\% | 8.5 | 7.9 | 59\% | 63\% |
| 88 | 10 | 71 | 0.140845 | 12.5461\% | 11.4829\% | 8.9 | 8.2 | 112\% | 123\% |
| 89 | 8 | 57 | 0.140351 | 13.9741\% | 12.7610\% | 8.0 | 7.3 | 100\% | 110\% |
| 90 | 3 | 46 | 0.065217 | 15.5178\% | 14.1333\% | 7.1 | 6.5 | 42\% | 46\% |
| 91 | 3 | 41 | 0.073171 | 17.0158\% | 15.2550\% | 7.0 | 6.3 | 43\% | 48\% |
| 92 | 8 | 27 | 0.296296 | 18.7473\% | 16.6383\% | 5.1 | 4.5 | 158\% | 178\% |
| 93 | 5 | 16 | 0.312500 | 20.3552\% | 18.1425\% | 3.3 | 2.9 | 154\% | 172\% |
| 94 | 3 | 12 | 0.250000 | 22.0384\% | 19.9404\% | 2.6 | 2.4 | 113\% | 125\% |
| 95 | 2 | 6 | 0.333333 | 25.3168\% | 23.4887\% | 1.5 | 1.4 | 132\% | 142\% |
| 96 | 1 | 3 | 0.333333 | 27.1711\% | 25.8163\% | 0.8 | 0.8 | 123\% | 129\% |
| 97 | 1 | 2 | 0.500000 | 28.9556\% | 28.3745\% | 0.6 | 0.6 | 173\% | 176\% |
| 98 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 287 | 29,518 |  |  |  | 366.2 | 330.6 | 78\% | 87\% |
| 100 or more | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| Total | 287 | 29,518 |  |  |  | 366.2 | 330.6 | 78\% | 87\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

|  | TABLE 1A GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 3 | 546 | 0.005495 | 0.2577\% | 0.2212\% | 1.4 | 1.2 | 213\% | 248\% |
| 45-49 | 4.0000 | 4,008 | 0.000998 | 0.3784\% | 0.3063\% | 15.2 | 12.3 | 26\% | 33\% |
| 50-54 | 22 | 5,018 | 0.004384 | 0.5474\% | 0.4337\% | 27.5 | 21.8 | 80\% | 101\% |
| 55-59 | 22 | 4,307 | 0.005108 | 0.8676\% | 0.6569\% | 37.4 | 28.3 | 59\% | 78\% |
| 60-64 | 29 | 3,098 | 0.009361 | 1.2413\% | 1.0334\% | 38.5 | 32.0 | 75\% | 91\% |
| 65-69 | 22 | 1,726 | 0.012746 | 1.8063\% | 1.6465\% | 31.2 | 28.4 | 71\% | 77\% |
| 70-74 | 24 | 1,399 | 0.017155 | 2.5807\% | 2.6677\% | 36.1 | 37.3 | 66\% | 64\% |
| 75-79 | 25 | 805 | 0.031056 | 4.2196\% | 4.2517\% | 34.0 | 34.2 | 74\% | 73\% |
| 80-84 | 38 | 507 | 0.074951 | 7.2131\% | 6.8059\% | 36.6 | 34.5 | 104\% | 110\% |
| 85-89 | 33 | 311 | 0.106109 | 11.5650\% | 10.9025\% | 36.0 | 33.9 | 92\% | 97\% |
| 90-94 | 17 | 115 | 0.147826 | 18.3524\% | 16.6449\% | 21.1 | 19.1 | 81\% | 89\% |
| 95-99 | 4 | 11 | 0.363636 | 26.4841\% | 25.0119\% | 2.9 | 2.8 | 137\% | 145\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 243 | 21,851 |  |  |  | 317.7 | 285.8 | 76\% | 85\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS MORTALITY EXPERIENCE OF SERVICE RETIREES WOMEN

|  | TABLE 1B GROUPED |  |  | Assumed Probability 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 338 | 0.000000 | 0.1017\% | 0.1732\% | 0.3 | 0.6 | 0\% | 0\% |
| 45-49 | 4 | 2,009 | 0.001991 | 0.1692\% | 0.2160\% | 3.4 | 4.3 | 118\% | 92\% |
| 50-54 | 9 | 2,408 | 0.003738 | 0.2988\% | 0.2902\% | 7.2 | 7.0 | 125\% | 129\% |
| 55-59 | 8 | 1,738 | 0.004603 | 0.5610\% | 0.4596\% | 9.8 | 8.0 | 82\% | 100\% |
| 60-64 | 1 | 556 | 0.001799 | 0.9515\% | 0.7344\% | 5.3 | 4.1 | 19\% | 24\% |
| 65-69 | 2 | 246 | 0.008130 | 1.3946\% | 1.1974\% | 3.4 | 2.9 | 58\% | 68\% |
| 70-74 | 2 | 122 | 0.016393 | 1.9566\% | 1.9122\% | 2.4 | 2.3 | 84\% | 86\% |
| 75-79 | 1 | 75 | 0.013333 | 3.1092\% | 3.1229\% | 2.3 | 2.3 | 43\% | 43\% |
| 80-84 | 6 | 73 | 0.082192 | 5.3533\% | 5.2252\% | 3.9 | 3.8 | 154\% | 157\% |
| 85-89 | 6 | 75 | 0.080000 | 8.6252\% | 7.9176\% | 6.5 | 5.9 | 93\% | 101\% |
| 90-94 | 5 | 27 | 0.185185 | 14.7134\% | 12.6010\% | 4.0 | 3.4 | 126\% | 147\% |
| 95-99 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 44 | 7,667 |  |  |  | 48.5 | 44.8 | 91\% | 98\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS MORTALITY EXPERIENCE OF SERVICE RETIREES <br> MEN AND WOMEN

|  | TABLE 1C GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 3 | 884 | 0.003394 | 0.1980\% | 0.2029\% | 1.8 | 1.8 | 171\% | 167\% |
| 45-49 | 8 | 6,017 | 0.001330 | 0.3086\% | 0.2762\% | 18.6 | 16.6 | 43\% | 48\% |
| 50-54 | 31 | 7,426 | 0.004175 | 0.4668\% | 0.3871\% | 34.7 | 28.7 | 89\% | 108\% |
| 55-59 | 30 | 6,045 | 0.004963 | 0.7795\% | 0.6001\% | 47.1 | 36.3 | 64\% | 83\% |
| 60-64 | 30 | 3,654 | 0.008210 | 1.1972\% | 0.9879\% | 43.7 | 36.1 | 69\% | 83\% |
| 65-69 | 24 | 1,972 | 0.012170 | 1.7549\% | 1.5905\% | 34.6 | 31.4 | 69\% | 77\% |
| 70-74 | 26 | 1,521 | 0.017094 | 2.5306\% | 2.6071\% | 38.5 | 39.7 | 68\% | 66\% |
| 75-79 | 26 | 880 | 0.029545 | 4.1250\% | 4.1555\% | 36.3 | 36.6 | 72\% | 71\% |
| 80-84 | 44 | 580 | 0.075862 | 6.9790\% | 6.6070\% | 40.5 | 38.3 | 109\% | 115\% |
| 85-89 | 39 | 386 | 0.101036 | 10.9938\% | 10.3226\% | 42.4 | 39.8 | 92\% | 98\% |
| 90-94 | 22 | 142 | 0.154930 | 17.6605\% | 15.8760\% | 25.1 | 22.5 | 88\% | 98\% |
| 95-99 | 4 | 11 | 0.363636 | 26.4841\% | 25.0119\% | 2.9 | 2.8 | 137\% | 145\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 287 | 29,518 |  |  |  | 366.2 | 330.6 | 78\% | 87\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

| Age | TABLE 1A |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 220 | 0.000000 | 0.1641\% | 0.1954\% | 0.4 | 0.4 | 0\% | 0\% |
| 42 | 1 | 483 | 0.002070 | 0.2095\% | 0.2139\% | 1.0 | 1.0 | 99\% | 97\% |
| 43 | 1 | 822 | 0.001217 | 0.2524\% | 0.2335\% | 2.1 | 1.9 | 48\% | 52\% |
| 44 | 5 | 1,135 | 0.004405 | 0.2930\% | 0.2539\% | 3.3 | 2.9 | 150\% | 173\% |
| 45 | 2 | 1,429 | 0.001400 | 0.3309\% | 0.2753\% | 4.7 | 3.9 | 42\% | 51\% |
| 46 | 3 | 1,645 | 0.001824 | 0.3623\% | 0.2973\% | 6.0 | 4.9 | 50\% | 61\% |
| 47 | 6 | 1,862 | 0.003222 | 0.3902\% | 0.3200\% | 7.3 | 6.0 | 83\% | 101\% |
| 48 | 1 | 1,996 | 0.000501 | 0.4150\% | 0.3435\% | 8.3 | 6.9 | 12\% | 15\% |
| 49 | 3 | 2,062 | 0.001455 | 0.4365\% | 0.3677\% | 9.0 | 7.6 | 33\% | 40\% |
| 50 | 6 | 2,084 | 0.002879 | 0.4548\% | 0.3928\% | 9.5 | 8.2 | 63\% | 73\% |
| 51 | 12 | 2,151 | 0.005579 | 0.5164\% | 0.4194\% | 11.1 | 9.0 | 108\% | 133\% |
| 52 | 11 | 2,101 | 0.005236 | 0.5801\% | 0.4482\% | 12.2 | 9.4 | 90\% | 117\% |
| 53 | 6 | 2,049 | 0.002928 | 0.6492\% | 0.4800\% | 13.3 | 9.8 | 45\% | 61\% |
| 54 | 8 | 2,010 | 0.003980 | 0.7209\% | 0.5159\% | 14.5 | 10.4 | 55\% | 77\% |
| 55 | 10 | 1,938 | 0.005160 | 0.7992\% | 0.5571\% | 15.5 | 10.8 | 65\% | 93\% |
| 56 | 13 | 1,857 | 0.007001 | 0.8580\% | 0.6045\% | 15.9 | 11.2 | 82\% | 116\% |
| 57 | 7 | 1,772 | 0.003950 | 0.9171\% | 0.6597\% | 16.3 | 11.7 | 43\% | 60\% |
| 58 | 7 | 1,688 | 0.004147 | 0.9770\% | 0.7235\% | 16.5 | 12.2 | 42\% | 57\% |
| 59 | 14 | 1,555 | 0.009003 | 1.0322\% | 0.7969\% | 16.1 | 12.4 | 87\% | 113\% |
| 60 | 15 | 1,421 | 0.010556 | 1.0873\% | 0.8809\% | 15.5 | 12.5 | 97\% | 120\% |
| 61 | 8 | 1,271 | 0.006294 | 1.2062\% | 0.9757\% | 15.3 | 12.4 | 52\% | 65\% |
| 62 | 10 | 1,148 | 0.008711 | 1.3166\% | 1.0811\% | 15.1 | 12.4 | 66\% | 81\% |
| 63 | 12 | 1,074 | 0.011173 | 1.4312\% | 1.1973\% | 15.4 | 12.9 | 78\% | 93\% |
| 64 | 9 | 1,011 | 0.008902 | 1.5362\% | 1.3248\% | 15.5 | 13.4 | 58\% | 67\% |
| 65 | 17 | 938 | 0.018124 | 1.6380\% | 1.4644\% | 15.4 | 13.7 | 111\% | 124\% |
| 66 | 10 | 858 | 0.011655 | 1.7825\% | 1.6171\% | 15.3 | 13.9 | 65\% | 72\% |
| 67 | 11 | 769 | 0.014304 | 1.9185\% | 1.7845\% | 14.8 | 13.7 | 75\% | 80\% |
| 68 | 12 | 729 | 0.016461 | 2.0444\% | 1.9673\% | 14.9 | 14.3 | 81\% | 84\% |
| 69 | 18 | 697 | 0.025825 | 2.1797\% | 2.1683\% | 15.2 | 15.1 | 118\% | 119\% |
| 70 | 16 | 651 | 0.024578 | 2.3034\% | 2.3885\% | 15.0 | 15.5 | 107\% | 103\% |
| 71 | 16 | 613 | 0.026101 | 2.5097\% | 2.6303\% | 15.4 | 16.1 | 104\% | 99\% |
| 72 | 10 | 568 | 0.017606 | 2.7205\% | 2.8957\% | 15.5 | 16.4 | 65\% | 61\% |
| 73 | 16 | 537 | 0.029795 | 2.9354\% | 3.1869\% | 15.8 | 17.1 | 102\% | 93\% |
| 74 | 13 | 479 | 0.027140 | 3.1547\% | 3.5059\% | 15.1 | 16.8 | 86\% | 77\% |
| 75 | 9 | 425 | 0.021176 | 3.3958\% | 3.8549\% | 14.4 | 16.4 | 62\% | 55\% |
| 76 | 12 | 388 | 0.030928 | 3.9148\% | 4.2378\% | 15.2 | 16.4 | 79\% | 73\% |
| 77 | 15 | 372 | 0.040323 | 4.4674\% | 4.6563\% | 16.6 | 17.3 | 90\% | 87\% |
| 78 | 14 | 336 | 0.041667 | 5.0367\% | 5.1135\% | 16.9 | 17.2 | 83\% | 81\% |
| 79 | 19 | 312 | 0.060897 | 5.6231\% | 5.6144\% | 17.5 | 17.5 | 108\% | 108\% |
| 80 | 27 | 284 | 0.095070 | 6.2265\% | 6.1638\% | 17.7 | 17.5 | 153\% | 154\% |
| 81 | 13 | 260 | 0.050000 | 6.8815\% | 6.7655\% | 17.9 | 17.6 | 73\% | 74\% |
| 82 | 14 | 258 | 0.054264 | 7.5426\% | 7.4253\% | 19.5 | 19.2 | 72\% | 73\% |
| 83 | 14 | 230 | 0.060870 | 8.1690\% | 8.1494\% | 18.8 | 18.7 | 75\% | 75\% |
| 84 | 25 | 210 | 0.119048 | 8.8398\% | 8.9441\% | 18.6 | 18.8 | 135\% | 133\% |
| 85 | 12 | 189 | 0.063492 | 9.4694\% | 9.8162\% | 17.9 | 18.6 | 67\% | 65\% |
| 86 | 23 | 169 | 0.136095 | 10.6877\% | 10.7724\% | 18.1 | 18.2 | 127\% | 126\% |
| 87 | 17 | 129 | 0.131783 | 12.0102\% | 11.8205\% | 15.5 | 15.2 | 110\% | 111\% |
| 88 | 15 | 106 | 0.141509 | 13.3898\% | 12.9666\% | 14.2 | 13.7 | 106\% | 109\% |
| 89 | 11 | 78 | 0.141026 | 14.7533\% | 14.2195\% | 11.5 | 11.1 | 96\% | 99\% |
| 90 | 6 | 62 | 0.096774 | 16.2424\% | 15.5886\% | 10.1 | 9.7 | 60\% | 62\% |
| 91 | 4 | 48 | 0.083333 | 18.0401\% | 17.0845\% | 8.7 | 8.2 | 46\% | 49\% |
| 92 | 11 | 33 | 0.333333 | 19.9041\% | 18.7143\% | 6.6 | 6.2 | 167\% | 178\% |
| 93 | 7 | 22 | 0.318182 | 21.6460\% | 20.4852\% | 4.8 | 4.5 | 147\% | 155\% |
| 94 | 1 | 13 | 0.076923 | 23.4023\% | 22.4306\% | 3.0 | 2.9 | 33\% | 34\% |
| 95 | 3 | 8 | 0.375000 | 25.4693\% | 24.5733\% | 2.0 | 2.0 | 147\% | 153\% |
| 96 | 2 | 4 | 0.500000 | 27.3348\% | 26.9426\% | 1.1 | 1.1 | 183\% | 186\% |
| 97 | 1 | 2 | 0.500000 | 29.1300\% | 29.5404\% | 0.6 | 0.6 | 172\% | 169\% |
| 98 | 0 | 0 | N/A | 31.0896\% | 32.3888\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 32.6998\% | 35.5155\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 584 | 47,561 |  |  |  | 698.9 | 645.6 | 84\% | 90\% |
| 100 or more | 0 | 0 | N/A | 37.1685\% | 47.0399\% | 0 | 0 | 0\% | 0\% |
| Total | 584 | 47,561 |  |  |  | 698.9 | 645.6 | 84\% | 90\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS MORTALITY EXPERIENCE OF SERVICE RETIREES WOMEN

| Age | TABLE 1B |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 72 | 0.000000 | 0.0819\% | 0.1596\% | 0.1 | 0.1 | 0\% | 0\% |
| 42 | 0 | 178 | 0.000000 | 0.0908\% | 0.1706\% | 0.2 | 0.3 | 0\% | 0\% |
| 43 | 1 | 337 | 0.002967 | 0.1020\% | 0.1812\% | 0.3 | 0.6 | 291\% | 164\% |
| 44 | 0 | 485 | 0.000000 | 0.1156\% | 0.1914\% | 0.6 | 0.9 | 0\% | 0\% |
| 45 | 1 | 612 | 0.001634 | 0.1313\% | 0.2012\% | 0.8 | 1.2 | 124\% | 81\% |
| 46 | 1 | 735 | 0.001361 | 0.1492\% | 0.2105\% | 1.1 | 1.5 | 91\% | 65\% |
| 47 | 5 | 856 | 0.005841 | 0.1693\% | 0.2194\% | 1.4 | 1.9 | 345\% | 266\% |
| 48 | 2 | 906 | 0.002208 | 0.1919\% | 0.2277\% | 1.7 | 2.1 | 115\% | 97\% |
| 49 | 1 | 930 | 0.001075 | 0.2162\% | 0.2358\% | 2.0 | 2.2 | 50\% | 46\% |
| 50 | 1 | 931 | 0.001074 | 0.2429\% | 0.2488\% | 2.3 | 2.3 | 44\% | 43\% |
| 51 | 4 | 915 | 0.004372 | 0.2752\% | 0.2666\% | 2.5 | 2.4 | 159\% | 164\% |
| 52 | 2 | 859 | 0.002328 | 0.3119\% | 0.2895\% | 2.7 | 2.5 | 75\% | 80\% |
| 53 | 2 | 795 | 0.002516 | 0.3517\% | 0.3177\% | 2.8 | 2.5 | 72\% | 79\% |
| 54 | 2 | 727 | 0.002751 | 0.3952\% | 0.3513\% | 2.9 | 2.6 | 70\% | 78\% |
| 55 | 2 | 665 | 0.003008 | 0.4427\% | 0.3906\% | 2.9 | 2.6 | 68\% | 77\% |
| 56 | 2 | 573 | 0.003490 | 0.5143\% | 0.4353\% | 2.9 | 2.5 | 68\% | 80\% |
| 57 | 2 | 497 | 0.004024 | 0.5899\% | 0.4857\% | 2.9 | 2.4 | 68\% | 83\% |
| 58 | 4 | 434 | 0.009217 | 0.6677\% | 0.5414\% | 2.9 | 2.3 | 138\% | 170\% |
| 59 | 3 | 332 | 0.009036 | 0.7498\% | 0.6025\% | 2.5 | 2.0 | 121\% | 150\% |
| 60 | 0 | 257 | 0.000000 | 0.8360\% | 0.6685\% | 2.1 | 1.7 | 0\% | 0\% |
| 61 | 1 | 210 | 0.004762 | 0.9283\% | 0.7392\% | 1.9 | 1.6 | 51\% | 64\% |
| 62 | 0 | 174 | 0.000000 | 1.0063\% | 0.8160\% | 1.8 | 1.4 | 0\% | 0\% |
| 63 | 0 | 147 | 0.000000 | 1.0825\% | 0.8998\% | 1.6 | 1.3 | 0\% | 0\% |
| 64 | 0 | 126 | 0.000000 | 1.1636\% | 0.9910\% | 1.5 | 1.2 | 0\% | 0\% |
| 65 | 2 | 117 | 0.017094 | 1.2496\% | 1.0901\% | 1.5 | 1.3 | 137\% | 157\% |
| 66 | 0 | 102 | 0.000000 | 1.3417\% | 1.1984\% | 1.4 | 1.2 | 0\% | 0\% |
| 67 | 3 | 94 | 0.031915 | 1.4451\% | 1.3166\% | 1.4 | 1.2 | 221\% | 242\% |
| 68 | 1 | 73 | 0.013699 | 1.5535\% | 1.4461\% | 1.1 | 1.1 | 88\% | 95\% |
| 69 | 1 | 67 | 0.014925 | 1.6294\% | 1.5881\% | 1.1 | 1.1 | 92\% | 94\% |
| 70 | 2 | 61 | 0.032787 | 1.6985\% | 1.7437\% | 1.0 | 1.1 | 193\% | 188\% |
| 71 | 1 | 53 | 0.018868 | 1.8767\% | 1.9146\% | 1.0 | 1.0 | 101\% | 99\% |
| 72 | 0 | 46 | 0.000000 | 2.0590\% | 2.1020\% | 0.9 | 1.0 | 0\% | 0\% |
| 73 | 1 | 43 | 0.023256 | 2.2263\% | 2.3080\% | 1.0 | 1.0 | 104\% | 101\% |
| 74 | 0 | 40 | 0.000000 | 2.3996\% | 2.5337\% | 1.0 | 1.0 | 0\% | 0\% |
| 75 | 1 | 43 | 0.023256 | 2.5562\% | 2.7819\% | 1.1 | 1.2 | 91\% | 84\% |
| 76 | 1 | 45 | 0.022222 | 2.8870\% | 3.0552\% | 1.3 | 1.4 | 77\% | 73\% |
| 77 | 2 | 42 | 0.047619 | 3.2341\% | 3.3563\% | 1.4 | 1.4 | 147\% | 142\% |
| 78 | 0 | 48 | 0.000000 | 3.5667\% | 3.6878\% | 1.7 | 1.8 | 0\% | 0\% |
| 79 | 2 | 50 | 0.040000 | 3.8992\% | 4.0546\% | 1.9 | 2.0 | 103\% | 99\% |
| 80 | 4 | 50 | 0.080000 | 4.2318\% | 4.4584\% | 2.1 | 2.2 | 189\% | 179\% |
| 81 | 1 | 46 | 0.021739 | 4.7578\% | 4.9043\% | 2.2 | 2.3 | 46\% | 44\% |
| 82 | 3 | 46 | 0.065217 | 5.2939\% | 5.3948\% | 2.4 | 2.5 | 123\% | 121\% |
| 83 | 3 | 43 | 0.069767 | 5.8399\% | 5.9362\% | 2.5 | 2.6 | 119\% | 118\% |
| 84 | 5 | 45 | 0.111111 | 6.3959\% | 6.5306\% | 2.9 | 2.9 | 174\% | 170\% |
| 85 | 2 | 41 | 0.048780 | 6.9972\% | 7.1838\% | 2.9 | 2.9 | 70\% | 68\% |
| 86 | 1 | 37 | 0.027027 | 8.0199\% | 7.8991\% | 3.0 | 2.9 | 34\% | 34\% |
| 87 | 4 | 35 | 0.114286 | 9.0525\% | 8.6794\% | 3.2 | 3.0 | 126\% | 132\% |
| 88 | 5 | 28 | 0.178571 | 10.0447\% | 9.5319\% | 2.8 | 2.7 | 178\% | 187\% |
| 89 | 3 | 20 | 0.150000 | 11.0925\% | 10.4649\% | 2.2 | 2.1 | 135\% | 143\% |
| 90 | 0 | 13 | 0.000000 | 12.0898\% | 11.4834\% | 1.6 | 1.5 | 0\% | 0\% |
| 91 | 2 | 13 | 0.153846 | 13.8041\% | 12.5946\% | 1.8 | 1.6 | 111\% | 122\% |
| 92 | 2 | 9 | 0.222222 | 15.4621\% | 13.8048\% | 1.4 | 1.2 | 144\% | 161\% |
| 93 | 1 | 5 | 0.200000 | 17.1684\% | 15.1237\% | 0.9 | 0.8 | 116\% | 132\% |
| 94 | 3 | 4 | 0.750000 | 18.6886\% | 16.5652\% | 0.7 | 0.7 | 401\% | 453\% |
| 95 | 0 | 0 | N/A | 20.1504\% | 18.1442\% | 0 | 0 | 0\% | 0\% |
| 96 | 0 | 0 | N/A | 21.3100\% | 19.8879\% | 0 | 0 | 0\% | 0\% |
| 97 | 0 | 0 | N/A | 22.4283\% | 21.7949\% | 0 | 0 | 0\% | 0\% |
| 98 | 0 | 0 | N/A | 23.1412\% | 23.8896\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 23.5424\% | 26.1831\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 92 | 14,112 |  |  |  | 95.7 | 92.9 | 96\% | 99\% |
| 100 or more | 0 | 0 | N/A | 25.4498\% | 34.6676\% | 0 | 0 | 0\% | 0\% |
| Total | 92 | 14,112 |  |  |  | 95.7 | 92.9 | 96\% | 99\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS MORTALITY EXPERIENCE OF SERVICE RETIREES <br> MEN AND WOMEN

| Age | TABLE 1C |  |  | Assumed | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $\text { (3) } \times(5)$ | Proposed $(3) \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 292 | 0.000000 | 0.1438\% | 0.1865\% | 0.4 | 0.5 | 0\% | 0\% |
| 42 | 1 | 661 | 0.001513 | 0.1775\% | 0.2022\% | 1.2 | 1.3 | 85\% | 75\% |
| 43 | 2 | 1,159 | 0.001726 | 0.2087\% | 0.2183\% | 2.4 | 2.5 | 83\% | 79\% |
| 44 | 5 | 1,620 | 0.003086 | 0.2399\% | 0.2352\% | 3.9 | 3.8 | 129\% | 131\% |
| 45 | 3 | 2,041 | 0.001470 | 0.2710\% | 0.2531\% | 5.5 | 5.2 | 54\% | 58\% |
| 46 | 4 | 2,380 | 0.001681 | 0.2965\% | 0.2705\% | 7.1 | 6.4 | 57\% | 62\% |
| 47 | 11 | 2,718 | 0.004047 | 0.3206\% | 0.2883\% | 8.7 | 7.8 | 126\% | 140\% |
| 48 | 3 | 2,902 | 0.001034 | 0.3453\% | 0.3073\% | 10.0 | 8.9 | 30\% | 34\% |
| 49 | 4 | 2,992 | 0.001337 | 0.3680\% | 0.3267\% | 11.0 | 9.8 | 36\% | 41\% |
| 50 | 7 | 3,015 | 0.002322 | 0.3894\% | 0.3483\% | 11.7 | 10.5 | 60\% | 67\% |
| 51 | 16 | 3,066 | 0.005219 | 0.4444\% | 0.3738\% | 13.6 | 11.5 | 117\% | 140\% |
| 52 | 13 | 2,960 | 0.004392 | 0.5023\% | 0.4022\% | 14.9 | 11.9 | 87\% | 109\% |
| 53 | 8 | 2,844 | 0.002813 | 0.5660\% | 0.4347\% | 16.1 | 12.4 | 50\% | 65\% |
| 54 | 10 | 2,737 | 0.003654 | 0.6344\% | 0.4722\% | 17.4 | 12.9 | 58\% | 77\% |
| 55 | 12 | 2,603 | 0.004610 | 0.7081\% | 0.5145\% | 18.4 | 13.4 | 65\% | 90\% |
| 56 | 15 | 2,430 | 0.006173 | 0.7770\% | 0.5646\% | 18.9 | 13.7 | 79\% | 109\% |
| 57 | 9 | 2,269 | 0.003967 | 0.8454\% | 0.6216\% | 19.2 | 14.1 | 47\% | 64\% |
| 58 | 11 | 2,122 | 0.005184 | 0.9137\% | 0.6863\% | 19.4 | 14.6 | 57\% | 76\% |
| 59 | 17 | 1,887 | 0.009009 | 0.9825\% | 0.7627\% | 18.5 | 14.4 | 92\% | 118\% |
| 60 | 15 | 1,678 | 0.008939 | 1.0488\% | 0.8483\% | 17.6 | 14.2 | 85\% | 105\% |
| 61 | 9 | 1,481 | 0.006077 | 1.1668\% | 0.9422\% | 17.3 | 14.0 | 52\% | 65\% |
| 62 | 10 | 1,322 | 0.007564 | 1.2758\% | 1.0462\% | 16.9 | 13.8 | 59\% | 72\% |
| 63 | 12 | 1,221 | 0.009828 | 1.3892\% | 1.1615\% | 17.0 | 14.2 | 71\% | 85\% |
| 64 | 9 | 1,137 | 0.007916 | 1.4949\% | 1.2878\% | 17.0 | 14.6 | 53\% | 61\% |
| 65 | 19 | 1,055 | 0.018009 | 1.5949\% | 1.4229\% | 16.8 | 15.0 | 113\% | 127\% |
| 66 | 10 | 960 | 0.010417 | 1.7357\% | 1.5726\% | 16.7 | 15.1 | 60\% | 66\% |
| 67 | 14 | 863 | 0.016222 | 1.8669\% | 1.7335\% | 16.1 | 15.0 | 87\% | 94\% |
| 68 | 13 | 802 | 0.016209 | 1.9997\% | 1.9199\% | 16.0 | 15.4 | 81\% | 84\% |
| 69 | 19 | 764 | 0.024869 | 2.1314\% | 2.1174\% | 16.3 | 16.2 | 117\% | 117\% |
| 70 | 18 | 712 | 0.025281 | 2.2516\% | 2.3333\% | 16.0 | 16.6 | 112\% | 108\% |
| 71 | 17 | 666 | 0.025526 | 2.4593\% | 2.5733\% | 16.4 | 17.1 | 104\% | 99\% |
| 72 | 10 | 614 | 0.016287 | 2.6709\% | 2.8362\% | 16.4 | 17.4 | 61\% | 57\% |
| 73 | 17 | 580 | 0.029310 | 2.8828\% | 3.1217\% | 16.7 | 18.1 | 102\% | 94\% |
| 74 | 13 | 519 | 0.025048 | 3.0965\% | 3.4310\% | 16.1 | 17.8 | 81\% | 73\% |
| 75 | 10 | 468 | 0.021368 | 3.3187\% | 3.7563\% | 15.5 | 17.6 | 64\% | 57\% |
| 76 | 13 | 433 | 0.030023 | 3.8080\% | 4.1149\% | 16.5 | 17.8 | 79\% | 73\% |
| 77 | 17 | 414 | 0.041063 | 4.3423\% | 4.5244\% | 18.0 | 18.7 | 95\% | 91\% |
| 78 | 14 | 384 | 0.036458 | 4.8530\% | 4.9353\% | 18.6 | 19.0 | 75\% | 74\% |
| 79 | 21 | 362 | 0.058011 | 5.3850\% | 5.3990\% | 19.5 | 19.5 | 108\% | 107\% |
| 80 | 31 | 334 | 0.092814 | 5.9279\% | 5.9085\% | 19.8 | 19.7 | 157\% | 157\% |
| 81 | 14 | 306 | 0.045752 | 6.5623\% | 6.4857\% | 20.1 | 19.8 | 70\% | 71\% |
| 82 | 17 | 304 | 0.055921 | 7.2023\% | 7.1180\% | 21.9 | 21.6 | 78\% | 79\% |
| 83 | 17 | 273 | 0.062271 | 7.8021\% | 7.8008\% | 21.3 | 21.3 | 80\% | 80\% |
| 84 | 30 | 255 | 0.117647 | 8.4085\% | 8.5182\% | 21.4 | 21.7 | 140\% | 138\% |
| 85 | 14 | 230 | 0.060870 | 9.0287\% | 9.3470\% | 20.8 | 21.5 | 67\% | 65\% |
| 86 | 24 | 206 | 0.116505 | 10.2085\% | 10.2563\% | 21.0 | 21.1 | 114\% | 114\% |
| 87 | 21 | 164 | 0.128049 | 11.3790\% | 11.1501\% | 18.7 | 18.3 | 113\% | 115\% |
| 88 | 20 | 134 | 0.149254 | 12.6908\% | 12.2489\% | 17.0 | 16.4 | 118\% | 122\% |
| 89 | 14 | 98 | 0.142857 | 14.0062\% | 13.4532\% | 13.7 | 13.2 | 102\% | 106\% |
| 90 | 6 | 75 | 0.080000 | 15.5226\% | 14.8771\% | 11.6 | 11.2 | 52\% | 54\% |
| 91 | 6 | 61 | 0.098361 | 17.1373\% | 16.1276\% | 10.5 | 9.8 | 57\% | 61\% |
| 92 | 13 | 42 | 0.309524 | 18.9522\% | 17.6623\% | 8.0 | 7.4 | 163\% | 175\% |
| 93 | 8 | 27 | 0.296296 | 20.8168\% | 19.4923\% | 5.6 | 5.3 | 142\% | 152\% |
| 94 | 4 | 17 | 0.235294 | 22.2932\% | 21.0505\% | 3.8 | 3.6 | 106\% | 112\% |
| 95 | 3 | 8 | 0.375000 | 25.4693\% | 24.5733\% | 2.0 | 2.0 | 147\% | 153\% |
| 96 | 2 | 4 | 0.500000 | 27.3348\% | 26.9426\% | 1.1 | 1.1 | 183\% | 186\% |
| 97 | 1 | 2 | 0.500000 | 29.1300\% | 29.5404\% | 0.6 | 0.6 | 172\% | 169\% |
| 98 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 676 | 61,673 |  |  |  | 794.6 | 738.5 | 85\% | 92\% |
| 100 or more | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| Total | 676 | 61,673 |  |  |  | 794.6 | 738.5 | 85\% | 92\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

|  | TABLE 1A GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 7 | 2,660 | 0.002632 | 0.2546\% | 0.2355\% | 6.8 | 6.3 | 103\% | 112\% |
| 45-49 | 15 | 8,994 | 0.001668 | 0.3918\% | 0.3249\% | 35.2 | 29.2 | 43\% | 51\% |
| 50-54 | 43 | 10,395 | 0.004137 | 0.5826\% | 0.4505\% | 60.6 | 46.8 | 71\% | 92\% |
| 55-59 | 51 | 8,810 | 0.005789 | 0.9105\% | 0.6619\% | 80.2 | 58.3 | 64\% | 87\% |
| 60-64 | 54 | 5,925 | 0.009114 | 1.2962\% | 1.0731\% | 76.8 | 63.6 | 70\% | 85\% |
| 65-69 | 68 | 3,991 | 0.017038 | 1.8920\% | 1.7737\% | 75.5 | 70.8 | 90\% | 96\% |
| 70-74 | 71 | 2,848 | 0.024930 | 2.6933\% | 2.8802\% | 76.7 | 82.0 | 93\% | 87\% |
| 75-79 | 69 | 1,833 | 0.037643 | 4.4030\% | 4.6288\% | 80.7 | 84.8 | 85\% | 81\% |
| 80-84 | 93 | 1,242 | 0.074879 | 7.4386\% | 7.3896\% | 92.4 | 91.8 | 101\% | 101\% |
| 85-89 | 78 | 671 | 0.116244 | 11.4983\% | 11.4519\% | 77.2 | 76.8 | 101\% | 102\% |
| 90-94 | 29 | 178 | 0.162921 | 18.5968\% | 17.6764\% | 33.1 | 31.5 | 88\% | 92\% |
| 95-99 | 6 | 14 | 0.428571 | 26.5253\% | 25.9598\% | 3.7 | 3.6 | 162\% | 165\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 584 | 47,561 |  |  |  | 698.9 | 645.6 | 84\% | 90\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS MORTALITY EXPERIENCE OF SERVICE RETIREES WOMEN

| Age | TABLE 1B GROUPED |  |  | Assumed Rate |  | 10-YEAR PERIOD ENDING 6/30/2013Expected Deaths |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 1 | 1,072 | 0.000933 | 0.1049\% | 0.1826\% | 1.1 | 2.0 | 89\% | 51\% |
| 45-49 | 10 | 4,039 | 0.002476 | 0.1758\% | 0.2207\% | 7.1 | 8.9 | 141\% | 112\% |
| 50-54 | 11 | 4,227 | 0.002602 | 0.3106\% | 0.2915\% | 13.1 | 12.3 | 84\% | 89\% |
| 55-59 | 13 | 2,501 | 0.005198 | 0.5682\% | 0.4740\% | 14.2 | 11.9 | 91\% | 110\% |
| 60-64 | 1 | 914 | 0.001094 | 0.9744\% | 0.7945\% | 8.9 | 7.3 | 11\% | 14\% |
| 65-69 | 7 | 453 | 0.015453 | 1.4161\% | 1.2925\% | 6.4 | 5.9 | 109\% | 120\% |
| 70-74 | 4 | 243 | 0.016461 | 2.0144\% | 2.0787\% | 4.9 | 5.1 | 82\% | 79\% |
| 75-79 | 6 | 228 | 0.026316 | 3.2536\% | 3.4115\% | 7.4 | 7.8 | 81\% | 77\% |
| 80-84 | 16 | 230 | 0.069565 | 5.2735\% | 5.4166\% | 12.1 | 12.5 | 132\% | 128\% |
| 85-89 | 15 | 161 | 0.093168 | 8.7178\% | 8.4893\% | 14.0 | 13.7 | 107\% | 110\% |
| 90-94 | 8 | 44 | 0.181818 | 14.4631\% | 13.1622\% | 6.4 | 5.8 | 126\% | 138\% |
| 95-99 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 92 | 14,112 |  |  |  | 95.7 | 92.9 | 96\% | 99\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS MORTALITY EXPERIENCE OF SERVICE RETIREES

MEN AND WOMEN

| Age | TABLE 1C GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } / \text { (3) } \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | Proposed (8) / (3) | Expected | Proposed | Expected $(2) /(7)$ | Proposed $(\mathbf{2}) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 8 | 3,732 | 0.002144 | 0.2116\% | 0.2203\% | 7.9 | 8.2 | 101\% | 97\% |
| 45-49 | 25 | 13,033 | 0.001918 | 0.3248\% | 0.2926\% | 42.3 | 38.1 | 59\% | 66\% |
| 50-54 | 54 | 14,622 | 0.003693 | 0.5040\% | 0.4045\% | 73.7 | 59.2 | 73\% | 91\% |
| 55-59 | 64 | 11,311 | 0.005658 | 0.8348\% | 0.6204\% | 94.4 | 70.2 | 68\% | 91\% |
| 60-64 | 55 | 6,839 | 0.008042 | 1.2532\% | 1.0359\% | 85.7 | 70.8 | 64\% | 78\% |
| 65-69 | 75 | 4,444 | 0.016877 | 1.8434\% | 1.7246\% | 81.9 | 76.6 | 92\% | 98\% |
| 70-74 | 75 | 3,091 | 0.024264 | 2.6400\% | 2.8172\% | 81.6 | 87.1 | 92\% | 86\% |
| 75-79 | 75 | 2,061 | 0.036390 | 4.2759\% | 4.4941\% | 88.1 | 92.6 | 85\% | 81\% |
| 80-84 | 109 | 1,472 | 0.074049 | 7.1003\% | 7.0813\% | 104.5 | 104.2 | 104\% | 105\% |
| 85-89 | 93 | 832 | 0.111779 | 10.9602\% | 10.8786\% | 91.2 | 90.5 | 102\% | 103\% |
| 90-94 | 37 | 222 | 0.166667 | 17.7775\% | 16.7817\% | 39.5 | 37.3 | 94\% | 99\% |
| 95-99 | 6 | 14 | 0.428571 | 26.5253\% | 25.9598\% | 3.7 | 3.6 | 162\% | 165\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 676 | 61,673 |  |  |  | 794.6 | 738.5 | 85\% | 92\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS MORTALITY EXPERIENCE OF SERVICE RETIREES MEN AND WOMEN

| Plan <br> Year <br> Ending <br> June 30, | TABLE 1D <br> Life Years Exposed | Actual <br> Deaths | Expected Deaths | 10-YEAR PERIOD ENDING 6/30/2013$\qquad$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / Expected | Actual $(3) /(2)$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 4,116 | 61 | 47.7 | 128\% | 1.4820\% | 1.1601\% |
| 2005 | 4,653 | 64 | 51.1 | 125\% | 1.3755\% | 1.0980\% |
| 2006 | 5,133 | 64 | 54.7 | 117\% | 1.2468\% | 1.0663\% |
| 2007 | 5,604 | 63 | 58.6 | 107\% | 1.1242\% | 1.0462\% |
| 2008 | 6,158 | 55 | 62.4 | 88\% | 0.8931\% | 1.0128\% |
| 2009 | 6,604 | 83 | 67.3 | 123\% | 1.2568\% | 1.0192\% |
| 2010 | 6,745 | 63 | 70.4 | 89\% | 0.9340\% | 1.0439\% |
| 2011 | 7,088 | 79 | 75.1 | 105\% | 1.1146\% | 1.0601\% |
| 2012 | 7,642 | 59 | 81.0 | 73\% | 0.7720\% | 1.0605\% |
| 2013 | 8,045 | 86 | 87.4 | 98\% | 1.0690\% | 1.0863\% |
| Total | 61,788 | 677 | 655.9 | 103\% | 1.0957\% | 1.0615\% |

[^7]
## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN

| Age | TABLE 2A |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | $\begin{aligned} & \text { Expected } \\ & \text { (3) } \times(5) \\ & \hline \end{aligned}$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 42 | 0.000000 | 0.9034\% | 0.4277\% | 0.4 | 0.2 | 0\% | 0\% |
| 42 | 0 | 69 | 0.000000 | 0.9249\% | 0.5537\% | 0.6 | 0.4 | 0\% | 0\% |
| 43 | 0 | 110 | 0.000000 | 0.9470\% | 0.6796\% | 1.0 | 0.7 | 0\% | 0\% |
| 44 | 0 | 139 | 0.000000 | 0.9699\% | 0.8055\% | 1.3 | 1.1 | 0\% | 0\% |
| 45 | 3 | 167 | 0.017964 | 0.9934\% | 0.9315\% | 1.7 | 1.6 | 181\% | 193\% |
| 46 | 0 | 182 | 0.000000 | 1.0176\% | 1.0574\% | 1.9 | 1.9 | 0\% | 0\% |
| 47 | 0 | 204 | 0.000000 | 1.0426\% | 1.1833\% | 2.1 | 2.4 | 0\% | 0\% |
| 48 | 1 | 219 | 0.004566 | 1.0683\% | 1.2873\% | 2.3 | 2.8 | 43\% | 35\% |
| 49 | 2 | 224 | 0.008929 | 1.0947\% | 1.3912\% | 2.5 | 3.1 | 82\% | 64\% |
| 50 | 2 | 228 | 0.008772 | 1.1220\% | 1.4952\% | 2.6 | 3.4 | 78\% | 59\% |
| 51 | 0 | 205 | 0.000000 | 1.1500\% | 1.5992\% | 2.4 | 3.3 | 0\% | 0\% |
| 52 | 2 | 197 | 0.010152 | 1.1789\% | 1.7031\% | 2.3 | 3.4 | 86\% | 60\% |
| 53 | 3 | 202 | 0.014851 | 1.1927\% | 1.7916\% | 2.4 | 3.6 | 125\% | 83\% |
| 54 | 1 | 202 | 0.004950 | 1.2067\% | 1.8801\% | 2.4 | 3.8 | 41\% | 26\% |
| 55 | 2 | 184 | 0.010870 | 1.2083\% | 1.9686\% | 2.2 | 3.6 | 90\% | 55\% |
| 56 | 2 | 177 | 0.011299 | 1.2818\% | 2.0571\% | 2.3 | 3.6 | 88\% | 55\% |
| 57 | 1 | 163 | 0.006135 | 1.3589\% | 2.1456\% | 2.2 | 3.5 | 45\% | 29\% |
| 58 | 2 | 152 | 0.013158 | 1.4399\% | 2.2383\% | 2.2 | 3.4 | 91\% | 59\% |
| 59 | 1 | 161 | 0.006211 | 1.5127\% | 2.3309\% | 2.4 | 3.8 | 41\% | 27\% |
| 60 | 1 | 169 | 0.005917 | 1.5885\% | 2.4235\% | 2.7 | 4.1 | 37\% | 24\% |
| 61 | 4 | 181 | 0.022099 | 1.7021\% | 2.5162\% | 3.1 | 4.6 | 130\% | 88\% |
| 62 | 3 | 185 | 0.016216 | 1.8089\% | 2.6088\% | 3.3 | 4.8 | 90\% | 62\% |
| 63 | 1 | 185 | 0.005405 | 1.9378\% | 2.7383\% | 3.6 | 5.1 | 28\% | 20\% |
| 64 | 0 | 162 | 0.000000 | 2.0593\% | 2.8677\% | 3.3 | 4.6 | 0\% | 0\% |
| 65 | 1 | 146 | 0.006849 | 2.1897\% | 2.9972\% | 3.2 | 4.4 | 31\% | 23\% |
| 66 | 1 | 124 | 0.008065 | 2.3493\% | 3.1266\% | 2.9 | 3.9 | 34\% | 26\% |
| 67 | 2 | 99 | 0.020202 | 2.5032\% | 3.2560\% | 2.5 | 3.2 | 81\% | 62\% |
| 68 | 4 | 99 | 0.040404 | 2.6489\% | 3.4680\% | 2.6 | 3.4 | 153\% | 117\% |
| 69 | 3 | 91 | 0.032967 | 2.8297\% | 3.6800\% | 2.6 | 3.3 | 117\% | 90\% |
| 70 | 2 | 79 | 0.025316 | 3.0026\% | 3.8920\% | 2.4 | 3.1 | 84\% | 65\% |
| 71 | 2 | 77 | 0.025974 | 3.2527\% | 4.1040\% | 2.5 | 3.2 | 80\% | 63\% |
| 72 | 1 | 67 | 0.014925 | 3.5278\% | 4.3160\% | 2.4 | 2.9 | 42\% | 35\% |
| 73 | 1 | 57 | 0.017544 | 3.8307\% | 4.6694\% | 2.2 | 2.7 | 46\% | 38\% |
| 74 | 1 | 45 | 0.022222 | 4.1637\% | 5.0227\% | 1.9 | 2.3 | 53\% | 44\% |
| 75 | 1 | 33 | 0.030303 | 4.5661\% | 5.3761\% | 1.5 | 1.8 | 66\% | 56\% |
| 76 | 2 | 30 | 0.066667 | 4.9925\% | 5.7294\% | 1.5 | 1.7 | 134\% | 116\% |
| 77 | 0 | 22 | 0.000000 | 5.5053\% | 6.0828\% | 1.2 | 1.3 | 0\% | 0\% |
| 78 | 1 | 22 | 0.045455 | 6.0715\% | 6.6494\% | 1.3 | 1.5 | 75\% | 68\% |
| 79 | 2 | 23 | 0.086957 | 6.6961\% | 7.2161\% | 1.5 | 1.7 | 130\% | 121\% |
| 80 | 4 | 22 | 0.181818 | 7.3842\% | 7.7827\% | 1.6 | 1.7 | 246\% | 234\% |
| 81 | 1 | 18 | 0.055556 | 8.1856\% | 8.3493\% | 1.5 | 1.5 | 68\% | 67\% |
| 82 | 2 | 15 | 0.133333 | 8.9993\% | 8.9159\% | 1.3 | 1.3 | 148\% | 150\% |
| 83 | 1 | 13 | 0.076923 | 9.7467\% | 9.7808\% | 1.3 | 1.3 | 79\% | 79\% |
| 84 | 1 | 13 | 0.076923 | 10.5790\% | 10.6456\% | 1.4 | 1.4 | 73\% | 72\% |
| 85 | 2 | 16 | 0.125000 | 11.3324\% | 11.5105\% | 1.8 | 1.8 | 110\% | 109\% |
| 86 | 2 | 14 | 0.142857 | 12.5123\% | 12.3753\% | 1.8 | 1.7 | 114\% | 115\% |
| 87 | 1 | 10 | 0.100000 | 13.8029\% | 13.2402\% | 1.4 | 1.3 | 72\% | 76\% |
| 88 | 1 | 5 | 0.200000 | 15.1136\% | 14.5013\% | 0.8 | 0.7 | 132\% | 138\% |
| 89 | 0 | 2 | 0.000000 | 16.3127\% | 15.7625\% | 0.3 | 0.3 | 0\% | 0\% |
| 90 | 0 | 0 | N/A | 17.6532\% | 17.0236\% | 0 | 0 | 0\% | 0\% |
| 91 | 0 | 1 | 0.000000 | 19.7349\% | 18.2847\% | 0.2 | 0.2 | 0\% | 0\% |
| 92 | 1 | 1 | 1.000000 | 21.9020\% | 19.5459\% | 0.2 | 0.2 | 457\% | 512\% |
| 93 | 0 | 1 | 0.000000 | 23.8022\% | 21.3144\% | 0.2 | 0.2 | 0\% | 0\% |
| 94 | 1 | 1 | 1.000000 | 25.6258\% | 23.0829\% | 0.3 | 0.2 | 390\% | 433\% |
| 95 | 0 | 0 | N/A | 27.6230\% | 24.8515\% | 0 | 0 | 0\% | 0\% |
| 96 | 0 | 0 | N/A | 29.0312\% | 26.6200\% | 0 | 0 | 0\% | 0\% |
| 97 | 0 | 0 | N/A | 30.3527\% | 28.3885\% | 0 | 0 | 0\% | 0\% |
| 98 | 0 | 0 | N/A | 31.9308\% | 30.7886\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 33.0643\% | 33.1888\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 72 | 5,255 |  |  |  | 99.5 | 127.1 | 72\% | 57\% |
| 100 or more | 0 | 0 | N/A | 37.1685\% | 40.3891\% | 0 | 0 | 0\% | 0\% |
| Total | 72 | 5,255 |  |  |  | 99.5 | 127.1 | 72\% | 57\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS MORTALITY EXPERIENCE OF DISABILITY RETIREES WOMEN

| Age | TABLE 2B |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 18 | 0.000000 | 0.9484\% | 0.9226\% | 0.2 | 0.2 | 0\% | 0\% |
| 42 | 0 | 27 | 0.000000 | 0.9579\% | 1.0619\% | 0.3 | 0.3 | 0\% | 0\% |
| 43 | 0 | 33 | 0.000000 | 0.9676\% | 1.2013\% | 0.3 | 0.4 | 0\% | 0\% |
| 44 | 0 | 45 | 0.000000 | 0.9776\% | 1.3407\% | 0.4 | 0.6 | 0\% | 0\% |
| 45 | 0 | 59 | 0.000000 | 1.0009\% | 1.4800\% | 0.6 | 0.9 | 0\% | 0\% |
| 46 | 0 | 66 | 0.000000 | 1.0250\% | 1.6194\% | 0.7 | 1.1 | 0\% | 0\% |
| 47 | 1 | 73 | 0.013699 | 1.0498\% | 1.7588\% | 0.8 | 1.3 | 130\% | 78\% |
| 48 | 1 | 82 | 0.012195 | 1.0612\% | 1.8672\% | 0.9 | 1.5 | 115\% | 65\% |
| 49 | 1 | 82 | 0.012195 | 1.0728\% | 1.9756\% | 0.9 | 1.6 | 114\% | 62\% |
| 50 | 0 | 67 | 0.000000 | 1.0705\% | 2.0840\% | 0.7 | 1.4 | 0\% | 0\% |
| 51 | 0 | 76 | 0.000000 | 1.0683\% | 2.1925\% | 0.8 | 1.7 | 0\% | 0\% |
| 52 | 1 | 61 | 0.016393 | 1.0522\% | 2.3009\% | 0.6 | 1.4 | 156\% | 71\% |
| 53 | 1 | 67 | 0.014925 | 1.0366\% | 2.3794\% | 0.7 | 1.6 | 144\% | 63\% |
| 54 | 0 | 74 | 0.000000 | 1.0213\% | 2.4580\% | 0.8 | 1.8 | 0\% | 0\% |
| 55 | 1 | 68 | 0.014706 | 1.0064\% | 2.5365\% | 0.7 | 1.7 | 146\% | 58\% |
| 56 | 1 | 74 | 0.013514 | 0.9918\% | 2.6151\% | 0.7 | 1.9 | 136\% | 52\% |
| 57 | 0 | 65 | 0.000000 | 0.9905\% | 2.6936\% | 0.6 | 1.8 | 0\% | 0\% |
| 58 | 0 | 63 | 0.000000 | 1.0050\% | 2.7573\% | 0.6 | 1.7 | 0\% | 0\% |
| 59 | 1 | 53 | 0.018868 | 1.0804\% | 2.8209\% | 0.6 | 1.5 | 175\% | 67\% |
| 60 | 2 | 41 | 0.048780 | 1.1606\% | 2.8846\% | 0.5 | 1.2 | 420\% | 169\% |
| 61 | 1 | 27 | 0.037037 | 1.2461\% | 2.9483\% | 0.3 | 0.8 | 297\% | 126\% |
| 62 | 0 | 18 | 0.000000 | 1.3092\% | 3.0119\% | 0.2 | 0.5 | 0\% | 0\% |
| 63 | 1 | 18 | 0.055556 | 1.3747\% | 3.0896\% | 0.2 | 0.6 | 404\% | 180\% |
| 64 | 0 | 13 | 0.000000 | 1.4927\% | 3.1674\% | 0.2 | 0.4 | 0\% | 0\% |
| 65 | 1 | 17 | 0.058824 | 1.5863\% | 3.2451\% | 0.3 | 0.6 | 371\% | 181\% |
| 66 | 0 | 14 | 0.000000 | 1.7219\% | 3.3228\% | 0.2 | 0.5 | 0\% | 0\% |
| 67 | 0 | 13 | 0.000000 | 1.8298\% | 3.4005\% | 0.2 | 0.4 | 0\% | 0\% |
| 68 | 0 | 13 | 0.000000 | 1.9457\% | 3.5351\% | 0.3 | 0.5 | 0\% | 0\% |
| 69 | 0 | 12 | 0.000000 | 2.1152\% | 3.6698\% | 0.3 | 0.4 | 0\% | 0\% |
| 70 | 0 | 11 | 0.000000 | 2.2538\% | 3.8044\% | 0.2 | 0.4 | 0\% | 0\% |
| 71 | 0 | 7 | 0.000000 | 2.3848\% | 3.9390\% | 0.2 | 0.3 | 0\% | 0\% |
| 72 | 0 | 6 | 0.000000 | 2.5475\% | 4.0737\% | 0.2 | 0.2 | 0\% | 0\% |
| 73 | 0 | 4 | 0.000000 | 2.7029\% | 4.3220\% | 0.1 | 0.2 | 0\% | 0\% |
| 74 | 0 | 4 | 0.000000 | 2.9280\% | 4.5704\% | 0.1 | 0.2 | 0\% | 0\% |
| 75 | 0 | 7 | 0.000000 | 3.2175\% | 4.8187\% | 0.2 | 0.3 | 0\% | 0\% |
| 76 | 0 | 6 | 0.000000 | 3.4938\% | 5.0671\% | 0.2 | 0.3 | 0\% | 0\% |
| 77 | 0 | 6 | 0.000000 | 3.7481\% | 5.3154\% | 0.2 | 0.3 | 0\% | 0\% |
| 78 | 0 | 6 | 0.000000 | 4.1649\% | 5.7482\% | 0.2 | 0.3 | 0\% | 0\% |
| 79 | 0 | 3 | 0.000000 | 4.5538\% | 6.1810\% | 0.1 | 0.2 | 0\% | 0\% |
| 80 | 0 | 3 | 0.000000 | 5.0882\% | 6.6138\% | 0.2 | 0.2 | 0\% | 0\% |
| 81 | 0 | 4 | 0.000000 | 5.6858\% | 7.0467\% | 0.2 | 0.3 | 0\% | 0\% |
| 82 | 0 | 4 | 0.000000 | 6.3538\% | 7.4795\% | 0.3 | 0.3 | 0\% | 0\% |
| 83 | 1 | 4 | 0.250000 | 7.0994\% | 8.1814\% | 0.3 | 0.3 | 352\% | 306\% |
| 84 | 0 | 2 | 0.000000 | 7.9738\% | 8.8833\% | 0.2 | 0.2 | 0\% | 0\% |
| 85 | 0 | 1 | 0.000000 | 8.7667\% | 9.5853\% | 0.1 | 0.1 | 0\% | 0\% |
| 86 | 0 | 2 | 0.000000 | 9.3715\% | 10.2872\% | 0.2 | 0.2 | 0\% | 0\% |
| 87 | 0 | 2 | 0.000000 | 10.1721\% | 10.9891\% | 0.2 | 0.2 | 0\% | 0\% |
| 88 | 0 | 2 | 0.000000 | 10.8966\% | 12.0588\% | 0.2 | 0.2 | 0\% | 0\% |
| 89 | 0 | 3 | 0.000000 | 11.8752\% | 13.1284\% | 0.4 | 0.4 | 0\% | 0\% |
| 90 | 0 | 2 | 0.000000 | 13.2726\% | 14.1981\% | 0.3 | 0.3 | 0\% | 0\% |
| 91 | 0 | 1 | 0.000000 | 14.7242\% | 15.2677\% | 0.1 | 0.2 | 0\% | 0\% |
| 92 | 0 | 2 | 0.000000 | 15.8924\% | 16.3374\% | 0.3 | 0.3 | 0\% | 0\% |
| 93 | 0 | 1 | 0.000000 | 17.1987\% | 17.8873\% | 0.2 | 0.2 | 0\% | 0\% |
| 94 | 0 | 1 | 0.000000 | 19.2269\% | 19.4373\% | 0.2 | 0.2 | 0\% | 0\% |
| 95 | 0 | 1 | 0.000000 | 21.6184\% | 20.9872\% | 0.2 | 0.2 | 0\% | 0\% |
| 96 | 0 | 0 | N/A | 23.3742\% | 22.5371\% | 0 | 0 | 0\% | 0\% |
| 97 | 0 | 0 | N/A | 23.4718\% | 24.0870\% | 0 | 0 | 0\% | 0\% |
| 98 | 0 | 0 | N/A | 23.4917\% | 26.2437\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 24.8039\% | 28.4003\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 14 | 1,434 |  |  |  | 19.9 | 36.8 | 70\% | 38\% |
| 100 or more | 0 | 0 | N/A | 25.4498\% | 34.8703\% | 0 | 0 | 0\% | 0\% |
| Total | 14 | 1,434 |  |  |  | 19.9 | 36.8 | 70\% | 38\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN AND WOMEN

|  | TABLE 2C |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013Expected Deaths |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 60 | 0.000000 | 0.9169\% | 0.5762\% | 0.6 | 0.3 | 0\% | 0\% |
| 42 | 0 | 96 | 0.000000 | 0.9342\% | 0.6966\% | 0.9 | 0.7 | 0\% | 0\% |
| 43 | 0 | 143 | 0.000000 | 0.9518\% | 0.8000\% | 1.4 | 1.1 | 0\% | 0\% |
| 44 | 0 | 184 | 0.000000 | 0.9718\% | 0.9364\% | 1.8 | 1.7 | 0\% | 0\% |
| 45 | 3 | 226 | 0.013274 | 0.9954\% | 1.0747\% | 2.2 | 2.4 | 133\% | 124\% |
| 46 | 0 | 248 | 0.000000 | 1.0196\% | 1.2070\% | 2.5 | 3.0 | 0\% | 0\% |
| 47 | 1 | 277 | 0.003610 | 1.0445\% | 1.3350\% | 2.9 | 3.7 | 35\% | 27\% |
| 48 | 2 | 301 | 0.006645 | 1.0664\% | 1.4453\% | 3.2 | 4.4 | 62\% | 46\% |
| 49 | 3 | 306 | 0.009804 | 1.0888\% | 1.5478\% | 3.3 | 4.7 | 90\% | 63\% |
| 50 | 2 | 295 | 0.006780 | 1.1103\% | 1.6289\% | 3.3 | 4.8 | 61\% | 42\% |
| 51 | 0 | 281 | 0.000000 | 1.1279\% | 1.7596\% | 3.2 | 4.9 | 0\% | 0\% |
| 52 | 3 | 258 | 0.011628 | 1.1489\% | 1.8445\% | 3.0 | 4.8 | 101\% | 63\% |
| 53 | 4 | 269 | 0.014870 | 1.1538\% | 1.9380\% | 3.1 | 5.2 | 129\% | 77\% |
| 54 | 1 | 276 | 0.003623 | 1.1570\% | 2.0351\% | 3.2 | 5.6 | 31\% | 18\% |
| 55 | 3 | 252 | 0.011905 | 1.1538\% | 2.1219\% | 2.9 | 5.3 | 103\% | 56\% |
| 56 | 3 | 251 | 0.011952 | 1.1963\% | 2.2216\% | 3.0 | 5.6 | 100\% | 54\% |
| 57 | 1 | 228 | 0.004386 | 1.2539\% | 2.3019\% | 2.9 | 5.2 | 35\% | 19\% |
| 58 | 2 | 215 | 0.009302 | 1.3125\% | 2.3903\% | 2.8 | 5.1 | 71\% | 39\% |
| 59 | 2 | 214 | 0.009346 | 1.4056\% | 2.4523\% | 3.0 | 5.2 | 66\% | 38\% |
| 60 | 3 | 210 | 0.014286 | 1.5050\% | 2.5136\% | 3.2 | 5.3 | 95\% | 57\% |
| 61 | 5 | 208 | 0.024038 | 1.6429\% | 2.5723\% | 3.4 | 5.4 | 146\% | 93\% |
| 62 | 3 | 203 | 0.014778 | 1.7646\% | 2.6446\% | 3.6 | 5.4 | 84\% | 56\% |
| 63 | 2 | 203 | 0.009852 | 1.8879\% | 2.7694\% | 3.8 | 5.6 | 52\% | 36\% |
| 64 | 0 | 175 | 0.000000 | 2.0172\% | 2.8900\% | 3.5 | 5.1 | 0\% | 0\% |
| 65 | 2 | 163 | 0.012270 | 2.1268\% | 3.0230\% | 3.5 | 4.9 | 58\% | 41\% |
| 66 | 1 | 138 | 0.007246 | 2.2857\% | 3.1465\% | 3.2 | 4.3 | 32\% | 23\% |
| 67 | 2 | 112 | 0.017857 | 2.4250\% | 3.2728\% | 2.7 | 3.7 | 74\% | 55\% |
| 68 | 4 | 112 | 0.035714 | 2.5673\% | 3.4758\% | 2.9 | 3.9 | 139\% | 103\% |
| 69 | 3 | 103 | 0.029126 | 2.7465\% | 3.6788\% | 2.8 | 3.8 | 106\% | 79\% |
| 70 | 2 | 90 | 0.022222 | 2.9111\% | 3.8813\% | 2.6 | 3.5 | 76\% | 57\% |
| 71 | 2 | 84 | 0.023810 | 3.1804\% | 4.0903\% | 2.7 | 3.4 | 75\% | 58\% |
| 72 | 1 | 73 | 0.013699 | $3.4472 \%$ | 4.2961\% | 2.5 | 3.1 | 40\% | 32\% |
| 73 | 1 | 61 | 0.016393 | 3.7567\% | 4.6466\% | 2.3 | 2.8 | 44\% | 35\% |
| 74 | 1 | 49 | 0.020408 | 4.0628\% | 4.9858\% | 2.0 | 2.4 | 50\% | 41\% |
| 75 | 1 | 40 | 0.025000 | 4.3301\% | 5.2785\% | 1.7 | 2.1 | 58\% | 47\% |
| 76 | 2 | 36 | 0.055556 | 4.7427\% | 5.6191\% | 1.7 | 2.0 | 117\% | 99\% |
| 77 | 0 | 28 | 0.000000 | 5.1288\% | 5.9184\% | 1.4 | 1.7 | 0\% | 0\% |
| 78 | 1 | 28 | 0.035714 | 5.6629\% | 6.4563\% | 1.6 | 1.8 | 63\% | 55\% |
| 79 | 2 | 26 | 0.076923 | 6.4489\% | 7.0966\% | 1.7 | 1.8 | 119\% | 108\% |
| 80 | 4 | 25 | 0.160000 | 7.1087\% | 7.6424\% | 1.8 | 1.9 | 225\% | 209\% |
| 81 | 1 | 22 | 0.045455 | 7.7311\% | 8.1125\% | 1.7 | 1.8 | 59\% | 56\% |
| 82 | 2 | 19 | 0.105263 | 8.4424\% | 8.6135\% | 1.6 | 1.6 | 125\% | 122\% |
| 83 | 2 | 17 | 0.117647 | 9.1238\% | 9.4045\% | 1.6 | 1.6 | 129\% | 125\% |
| 84 | 1 | 15 | 0.066667 | 10.2316\% | 10.4107\% | 1.5 | 1.6 | 65\% | 64\% |
| 85 | 2 | 17 | 0.117647 | 11.1815\% | 11.3972\% | 1.9 | 1.9 | 105\% | 103\% |
| 86 | 2 | 16 | 0.125000 | 12.1197\% | 12.1143\% | 1.9 | 1.9 | 103\% | 103\% |
| 87 | 1 | 12 | 0.083333 | 13.1978\% | 12.8650\% | 1.6 | 1.5 | 63\% | 65\% |
| 88 | 1 | 7 | 0.142857 | 13.9087\% | 13.8035\% | 1.0 | 1.0 | 103\% | 103\% |
| 89 | 0 | 5 | 0.000000 | 13.6502\% | 14.1820\% | 0.7 | 0.7 | 0\% | 0\% |
| 90 | 0 | 2 | 0.000000 | 13.2726\% | 14.1981\% | 0.3 | 0.3 | 0\% | 0\% |
| 91 | 0 | 2 | 0.000000 | 17.2296\% | 16.7762\% | 0.3 | 0.3 | 0\% | 0\% |
| 92 | 1 | 3 | 0.333333 | 17.8956\% | 17.4069\% | 0.5 | 0.5 | 186\% | 191\% |
| 93 | 0 | 2 | 0.000000 | 20.5005\% | 19.6009\% | 0.4 | 0.4 | 0\% | 0\% |
| 94 | 1 | 2 | 0.500000 | 22.4264\% | 21.2601\% | 0.4 | 0.4 | 223\% | 235\% |
| 95 | 0 | 1 | 0.000000 | 21.6184\% | 20.9872\% | 0.2 | 0.2 | 0\% | 0\% |
| 96 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 97 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 98 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 86 | 6,689 |  |  |  | 119.4 | 163.8 | 72\% | 52\% |
| 100 or more | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| Total | 86 | 6,689 |  |  |  | 119.4 | 163.8 | 72\% | 52\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN

|  | TABLE 2A GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected $(7) /(\mathbf{3})$ | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 360 | 0.000000 | 0.9465\% | 0.6747\% | 3.4 | 2.4 | 0\% | 0\% |
| 45-49 | 6 | 996 | 0.006024 | 1.0472\% | 1.1877\% | 10.4 | 11.8 | 58\% | 51\% |
| 50-54 | 8 | 1,034 | 0.007737 | 1.1688\% | 1.6885\% | 12.1 | 17.5 | 66\% | 46\% |
| 55-59 | 8 | 837 | 0.009558 | 1.3538\% | 2.1405\% | 11.3 | 17.9 | 71\% | 45\% |
| 60-64 | 9 | 882 | 0.010204 | 1.8178\% | 2.6290\% | 16.0 | 23.2 | 56\% | 39\% |
| 65-69 | 11 | 559 | 0.019678 | 2.4661\% | 3.2663\% | 13.8 | 18.3 | 80\% | 60\% |
| 70-74 | 7 | 325 | 0.021538 | 3.4761\% | 4.3225\% | 11.3 | 14.0 | 62\% | 50\% |
| 75-79 | 6 | 130 | 0.046154 | 5.4550\% | 6.1183\% | 7.1 | 8.0 | 85\% | 75\% |
| 80-84 | 9 | 81 | 0.111111 | 8.7533\% | 8.8986\% | 7.1 | 7.2 | 127\% | 125\% |
| 85-89 | 6 | 47 | 0.127660 | 12.8237\% | 12.6352\% | 6.0 | 5.9 | 100\% | 101\% |
| 90-94 | 2 | 4 | 0.500000 | 22.7662\% | 20.5570\% | 0.9 | 0.8 | 220\% | 243\% |
| 95-99 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 72 | 5,255 |  |  |  | 99.5 | 127.1 | 72\% | 57\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS

## MORTALITY EXPERIENCE OF DISABILITY RETIREES

WOMEN

|  | TABLE 2B GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 123 | 0.000000 | 0.9663\% | 1.1809\% | 1.2 | 1.5 | 0\% | 0\% |
| 45-49 | 3 | 362 | 0.008287 | 1.0451\% | 1.7616\% | 3.8 | 6.4 | 79\% | 47\% |
| 50-54 | 2 | 345 | 0.005797 | 1.0496\% | 2.2838\% | 3.6 | 7.9 | 55\% | 25\% |
| 55-59 | 3 | 323 | 0.009288 | 1.0117\% | 2.6758\% | 3.3 | 8.6 | 92\% | 35\% |
| 60-64 | 4 | 117 | 0.034188 | 1.2730\% | 2.9818\% | 1.5 | 3.5 | 269\% | 115\% |
| 65-69 | 1 | 69 | 0.014493 | 1.8194\% | 3.4186\% | 1.3 | 2.4 | 80\% | 42\% |
| 70-74 | 0 | 32 | 0.000000 | 2.4779\% | 4.0448\% | 0.8 | 1.3 | 0\% | 0\% |
| 75-79 | 0 | 28 | 0.000000 | 3.7366\% | 5.3235\% | 1.0 | 1.5 | 0\% | 0\% |
| 80-84 | 1 | 17 | 0.058824 | 6.3393\% | 7.5552\% | 1.1 | 1.3 | 93\% | 78\% |
| 85-89 | 0 | 10 | 0.000000 | 10.5273\% | 11.5641\% | 1.1 | 1.2 | 0\% | 0\% |
| 90-94 | 0 | 7 | 0.000000 | 15.6400\% | 16.2376\% | 1.1 | 1.1 | 0\% | 0\% |
| 95-99 | 0 | 1 | 0.000000 | 21.6184\% | 20.9872\% | 0.2 | 0.2 | 0\% | 0\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 14 | 1,434 |  |  |  | 19.9 | 36.8 | 70\% | 38\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS MORTALITY EXPERIENCE OF DISABILITY RETIREES <br> MEN AND WOMEN

| Age | TABLE 2C GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 483 | 0.000000 | 0.9516\% | 0.8036\% | 4.6 | 3.9 | 0\% | 0\% |
| 45-49 | 9 | 1,358 | 0.006627 | 1.0466\% | 1.3407\% | 14.2 | 18.2 | 63\% | 49\% |
| 50-54 | 10 | 1,379 | 0.007252 | 1.1390\% | 1.8375\% | 15.7 | 25.3 | 64\% | 39\% |
| 55-59 | 11 | 1,160 | 0.009483 | 1.2585\% | 2.2895\% | 14.6 | 26.6 | 75\% | 41\% |
| 60-64 | 13 | 999 | 0.013013 | 1.7540\% | 2.6703\% | 17.5 | 26.7 | 74\% | 49\% |
| 65-69 | 12 | 628 | 0.019108 | 2.3951\% | 3.2830\% | 15.0 | 20.6 | 80\% | 58\% |
| 70-74 | 7 | 357 | 0.019608 | 3.3867\% | 4.2976\% | 12.1 | 15.3 | 58\% | 46\% |
| 75-79 | 6 | 158 | 0.037975 | 5.1505\% | 5.9774\% | 8.1 | 9.4 | 74\% | 64\% |
| 80-84 | 10 | 98 | 0.102041 | 8.3345\% | 8.6656\% | 8.2 | 8.5 | 122\% | 118\% |
| 85-89 | 6 | 57 | 0.105263 | 12.4208\% | 12.4473\% | 7.1 | 7.1 | 85\% | 85\% |
| 90-94 | 2 | 11 | 0.181818 | 18.2313\% | 17.8083\% | 2.0 | 2.0 | 100\% | 102\% |
| 95-99 | 0 | 1 | 0.000000 | 21.6184\% | 20.9872\% | 0.2 | 0.2 | 0\% | 0\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 86 | 6,689 |  |  |  | 119.4 | 163.8 | 72\% | 52\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN

| Age | TABLE 2A |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed $\text { (2) } /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 1 | 260 | 0.003846 | 0.9282\% | 0.4643\% | 2.4 | 1.2 | 41\% | 83\% |
| 42 | 1 | 316 | 0.003165 | 0.9532\% | 0.6030\% | 3.0 | 1.9 | 33\% | 52\% |
| 43 | 0 | 373 | 0.000000 | 0.9790\% | 0.7413\% | 3.7 | 2.8 | 0\% | 0\% |
| 44 | 0 | 413 | 0.000000 | 1.0056\% | 0.8782\% | 4.2 | 3.6 | 0\% | 0\% |
| 45 | 6 | 455 | 0.013187 | 1.0332\% | 1.0132\% | 4.7 | 4.6 | 128\% | 130\% |
| 46 | 2 | 465 | 0.004301 | 1.0616\% | 1.1457\% | 4.9 | 5.3 | 41\% | 38\% |
| 47 | 0 | 466 | 0.000000 | 1.0909\% | 1.2757\% | 5.1 | 5.9 | 0\% | 0\% |
| 48 | 3 | 484 | 0.006198 | 1.1212\% | 1.3794\% | 5.4 | 6.7 | 55\% | 45\% |
| 49 | 3 | 480 | 0.006250 | 1.1525\% | 1.4804\% | 5.5 | 7.1 | 54\% | 42\% |
| 50 | 5 | 480 | 0.010417 | 1.1848\% | 1.5788\% | 5.7 | 7.6 | 88\% | 66\% |
| 51 | 4 | 449 | 0.008909 | 1.2182\% | 1.6744\% | 5.5 | 7.5 | 73\% | 53\% |
| 52 | 5 | 444 | 0.011261 | 1.2526\% | 1.7670\% | 5.6 | 7.8 | 90\% | 64\% |
| 53 | 6 | 445 | 0.013483 | 1.2672\% | 1.8420\% | 5.6 | 8.2 | 106\% | 73\% |
| 54 | 2 | 442 | 0.004525 | 1.2821\% | 1.9177\% | 5.7 | 8.5 | 35\% | 24\% |
| 55 | 6 | 444 | 0.013514 | 1.2799\% | 1.9960\% | 5.7 | 8.9 | 106\% | 68\% |
| 56 | 4 | 453 | 0.008830 | 1.3536\% | 2.0785\% | 6.1 | 9.4 | 65\% | 42\% |
| 57 | 8 | 454 | 0.017621 | 1.4306\% | 2.1668\% | 6.5 | 9.8 | 123\% | 81\% |
| 58 | 5 | 417 | 0.011990 | 1.5112\% | 2.2656\% | 6.3 | 9.4 | 79\% | 53\% |
| 59 | 4 | 412 | 0.009709 | 1.5877\% | 2.3705\% | 6.5 | 9.8 | 61\% | 41\% |
| 60 | 3 | 406 | 0.007389 | 1.6672\% | 2.4814\% | 6.8 | 10.1 | 44\% | 30\% |
| 61 | 8 | 392 | 0.020408 | 1.7811\% | 2.5964\% | 7.0 | 10.2 | 115\% | 79\% |
| 62 | 6 | 366 | 0.016393 | 1.8928\% | 2.7138\% | 6.9 | 9.9 | 87\% | 60\% |
| 63 | 5 | 341 | 0.014663 | 2.0216\% | 2.8702\% | 6.9 | 9.8 | 73\% | 51\% |
| 64 | 4 | 315 | 0.012698 | 2.1482\% | 3.0262\% | 6.8 | 9.5 | 59\% | 42\% |
| 65 | 3 | 290 | 0.010345 | 2.2843\% | 3.1809\% | 6.6 | 9.2 | 45\% | 33\% |
| 66 | 3 | 251 | 0.011952 | 2.4433\% | 3.3338\% | 6.1 | 8.4 | 49\% | 36\% |
| 67 | 7 | 214 | 0.032710 | 2.6034\% | 3.4857\% | 5.6 | 7.5 | 126\% | 94\% |
| 68 | 5 | 198 | 0.025253 | 2.7634\% | 3.7241\% | 5.5 | 7.4 | 91\% | 68\% |
| 69 | 5 | 173 | 0.028902 | 2.9519\% | 3.9627\% | 5.1 | 6.9 | 98\% | 73\% |
| 70 | 5 | 151 | 0.033113 | 3.1419\% | 4.2004\% | 4.7 | 6.3 | 105\% | 79\% |
| 71 | 4 | 132 | 0.030303 | 3.4036\% | 4.4379\% | 4.5 | 5.9 | 89\% | 68\% |
| 72 | 2 | 118 | 0.016949 | 3.6914\% | 4.6748\% | 4.4 | 5.5 | 46\% | 36\% |
| 73 | 3 | 101 | 0.029703 | 4.0084\% | 5.0643\% | 4.0 | 5.1 | 74\% | 59\% |
| 74 | 3 | 86 | 0.034884 | 4.3569\% | 5.4526\% | 3.7 | 4.7 | 80\% | 64\% |
| 75 | 2 | 70 | 0.028571 | 4.7634\% | 5.8386\% | 3.3 | 4.1 | 60\% | 49\% |
| 76 | 3 | 63 | 0.047619 | 5.2082\% | 6.2236\% | 3.3 | 3.9 | 91\% | 77\% |
| 77 | 4 | 58 | 0.068966 | 5.7257\% | 6.6054\% | 3.3 | 3.8 | 120\% | 104\% |
| 78 | 1 | 52 | 0.019231 | 6.2954\% | 7.2148\% | 3.3 | 3.8 | 31\% | 27\% |
| 79 | 2 | 55 | 0.036364 | 6.9221\% | 7.8215\% | 3.8 | 4.3 | 53\% | 46\% |
| 80 | 6 | 51 | 0.117647 | 7.6102\% | 8.4262\% | 3.9 | 4.3 | 155\% | 140\% |
| 81 | 3 | 42 | 0.071429 | 8.4106\% | 9.0276\% | 3.5 | 3.8 | 85\% | 79\% |
| 82 | 4 | 36 | 0.111111 | 9.2188\% | 9.6264\% | 3.3 | 3.5 | 121\% | 115\% |
| 83 | 2 | 28 | 0.071429 | 9.9844\% | 10.5450\% | 2.8 | 3.0 | 72\% | 68\% |
| 84 | 4 | 24 | 0.166667 | 10.8043\% | 11.4610\% | 2.6 | 2.8 | 154\% | 145\% |
| 85 | 2 | 19 | 0.105263 | 11.5738\% | 12.3743\% | 2.2 | 2.4 | 91\% | 85\% |
| 86 | 3 | 16 | 0.187500 | 12.7788\% | 13.2837\% | 2.0 | 2.1 | 147\% | 141\% |
| 87 | 1 | 12 | 0.083333 | 14.0544\% | 14.1888\% | 1.7 | 1.7 | 59\% | 59\% |
| 88 | 1 | 7 | 0.142857 | 15.3426\% | 15.5101\% | 1.1 | 1.1 | 93\% | 92\% |
| 89 | 0 | 4 | 0.000000 | 16.5598\% | 16.8210\% | 0.7 | 0.7 | 0\% | 0\% |
| 90 | 0 | 2 | 0.000000 | 17.8667\% | 18.1205\% | 0.4 | 0.4 | 0\% | 0\% |
| 91 | 0 | 2 | 0.000000 | 19.9737\% | 19.4074\% | 0.4 | 0.4 | 0\% | 0\% |
| 92 | 1 | 2 | 0.500000 | 22.1003\% | 20.6763\% | 0.4 | 0.4 | 226\% | 242\% |
| 93 | 0 | 1 | 0.000000 | 24.0177\% | 22.4555\% | 0.2 | 0.2 | 0\% | 0\% |
| 94 | 1 | 1 | 1.000000 | 25.8578\% | 24.2273\% | 0.3 | 0.2 | 387\% | 413\% |
| 95 | 0 | 0 | N/A | 27.7894\% | 25.9989\% | 0 | 0 | 0\% | 0\% |
| 96 | 0 | 0 | N/A | 29.2061\% | 27.7814\% | 0 | 0 | 0\% | 0\% |
| 97 | 0 | 0 | N/A | 30.5355\% | 29.5550\% | 0 | 0 | 0\% | 0\% |
| 98 | 0 | 0 | N/A | 32.0268\% | 31.9759\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 33.1637\% | 34.3885\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 171 | 12,231 |  |  |  | 225.2 | 289.1 | 76\% | 59\% |
| 100 or more | 0 | 0 | N/A | 37.1685\% | 41.8491\% | 0 | 0 | 0\% | 0\% |
| Total | 171 | 12,231 |  |  |  | 225.2 | 289.1 | 76\% | 59\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS MORTALITY EXPERIENCE OF DISABILITY RETIREES WOMEN

|  | TABLE 2B |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } /(\mathbf{3}) \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $\text { (3) } \times(5)$ | Proposed $(3) \times(6)$ | Expected (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 1 | 93 | 0.010753 | 0.9924\% | 0.9910\% | 0.9 | 0.9 | 108\% | 109\% |
| 42 | 2 | 119 | 0.016807 | 1.0023\% | 1.1369\% | 1.2 | 1.4 | 168\% | 148\% |
| 43 | 3 | 129 | 0.023256 | 1.0125\% | 1.2792\% | 1.3 | 1.7 | 230\% | 182\% |
| 44 | 1 | 141 | 0.007092 | 1.0229\% | 1.4176\% | 1.4 | 2.0 | 69\% | 50\% |
| 45 | 2 | 156 | 0.012821 | 1.0506\% | 1.5526\% | 1.6 | 2.4 | 122\% | 83\% |
| 46 | 0 | 157 | 0.000000 | 1.0791\% | 1.6837\% | 1.7 | 2.6 | 0\% | 0\% |
| 47 | 3 | 173 | 0.017341 | 1.1086\% | 1.8115\% | 1.9 | 3.1 | 156\% | 96\% |
| 48 | 3 | 172 | 0.017442 | 1.1206\% | 1.9058\% | 1.9 | 3.3 | 156\% | 92\% |
| 49 | 2 | 174 | 0.011494 | 1.1329\% | 2.0007\% | 2.0 | 3.5 | 101\% | 57\% |
| 50 | 1 | 168 | 0.005952 | 1.1270\% | 2.0987\% | 1.9 | 3.5 | 53\% | 28\% |
| 51 | 3 | 172 | 0.017442 | 1.1212\% | 2.2008\% | 1.9 | 3.8 | 156\% | 79\% |
| 52 | 1 | 160 | 0.006250 | 1.0977\% | 2.3092\% | 1.8 | 3.7 | 57\% | 27\% |
| 53 | 3 | 151 | 0.019868 | 1.0748\% | 2.3940\% | 1.6 | 3.6 | 185\% | 83\% |
| 54 | 1 | 148 | 0.006757 | 1.0525\% | 2.4855\% | 1.6 | 3.7 | 64\% | 27\% |
| 55 | 1 | 126 | 0.007937 | 1.0309\% | 2.5832\% | 1.3 | 3.3 | 77\% | 31\% |
| 56 | 2 | 119 | 0.016807 | 1.0099\% | 2.6856\% | 1.2 | 3.2 | 166\% | 63\% |
| 57 | 0 | 100 | 0.000000 | 1.0055\% | 2.7913\% | 1.0 | 2.8 | 0\% | 0\% |
| 58 | 0 | 90 | 0.000000 | 1.0202\% | 2.8828\% | 0.9 | 2.6 | 0\% | 0\% |
| 59 | 1 | 78 | 0.012821 | 1.0967\% | 2.9744\% | 0.9 | 2.3 | 117\% | 43\% |
| 60 | 3 | 62 | 0.048387 | 1.1782\% | 3.0636\% | 0.7 | 1.9 | 411\% | 158\% |
| 61 | 1 | 50 | 0.020000 | 1.2650\% | 3.1501\% | 0.6 | 1.6 | 158\% | 63\% |
| 62 | 0 | 40 | 0.000000 | 1.3290\% | 3.2323\% | 0.5 | 1.3 | 0\% | 0\% |
| 63 | 2 | 39 | 0.051282 | 1.3956\% | 3.3266\% | 0.5 | 1.3 | 367\% | 154\% |
| 64 | 1 | 32 | 0.031250 | 1.5153\% | 3.4169\% | 0.5 | 1.1 | 206\% | 91\% |
| 65 | 1 | 32 | 0.031250 | 1.6103\% | 3.5037\% | 0.5 | 1.1 | 194\% | 89\% |
| 66 | 0 | 29 | 0.000000 | 1.7480\% | 3.5883\% | 0.5 | 1.0 | 0\% | 0\% |
| 67 | 1 | 25 | 0.040000 | 1.8576\% | 3.6707\% | 0.5 | 0.9 | 215\% | 109\% |
| 68 | 0 | 22 | 0.000000 | 1.9752\% | 3.8133\% | 0.4 | 0.8 | 0\% | 0\% |
| 69 | 0 | 22 | 0.000000 | 2.1473\% | 3.9553\% | 0.5 | 0.9 | 0\% | 0\% |
| 70 | 1 | 21 | 0.047619 | 2.2879\% | 4.0962\% | 0.5 | 0.9 | 208\% | 116\% |
| 71 | 0 | 17 | 0.000000 | 2.4282\% | 4.2368\% | 0.4 | 0.7 | 0\% | 0\% |
| 72 | 1 | 15 | 0.066667 | 2.5939\% | 4.3767\% | 0.4 | 0.7 | 257\% | 152\% |
| 73 | 0 | 11 | 0.000000 | 2.7605\% | 4.6388\% | 0.3 | 0.5 | 0\% | 0\% |
| 74 | 0 | 11 | 0.000000 | 2.9904\% | 4.8993\% | 0.3 | 0.5 | 0\% | 0\% |
| 75 | 0 | 13 | 0.000000 | 3.2960\% | 5.1602\% | 0.4 | 0.7 | 0\% | 0\% |
| 76 | 1 | 14 | 0.071429 | 3.5790\% | 5.4218\% | 0.5 | 0.8 | 200\% | 132\% |
| 77 | 0 | 12 | 0.000000 | 3.8279\% | 5.6846\% | 0.5 | 0.7 | 0\% | 0\% |
| 78 | 0 | 12 | 0.000000 | 4.2536\% | 6.1456\% | 0.5 | 0.7 | 0\% | 0\% |
| 79 | 0 | 9 | 0.000000 | 4.6508\% | 6.6103\% | 0.4 | 0.6 | 0\% | 0\% |
| 80 | 0 | 11 | 0.000000 | 5.1965\% | 7.0761\% | 0.6 | 0.8 | 0\% | 0\% |
| 81 | 2 | 11 | 0.181818 | 5.8069\% | 7.5453\% | 0.6 | 0.8 | 313\% | 241\% |
| 82 | 0 | 9 | 0.000000 | 6.4891\% | 8.0153\% | 0.6 | 0.7 | 0\% | 0\% |
| 83 | 2 | 10 | 0.200000 | 7.2506\% | 8.7774\% | 0.7 | 0.9 | 276\% | 228\% |
| 84 | 0 | 8 | 0.000000 | 8.1436\% | 9.5393\% | 0.7 | 0.8 | 0\% | 0\% |
| 85 | 1 | 8 | 0.125000 | 8.9264\% | 10.3015\% | 0.7 | 0.8 | 140\% | 121\% |
| 86 | 0 | 7 | 0.000000 | 9.5135\% | 11.0604\% | 0.7 | 0.8 | 0\% | 0\% |
| 87 | 0 | 6 | 0.000000 | 10.2952\% | 11.8114\% | 0.6 | 0.7 | 0\% | 0\% |
| 88 | 0 | 6 | 0.000000 | 11.0284\% | 12.9505\% | 0.7 | 0.8 | 0\% | 0\% |
| 89 | 2 | 6 | 0.333333 | 11.9827\% | 14.0834\% | 0.7 | 0.8 | 278\% | 237\% |
| 90 | 0 | 4 | 0.000000 | 13.3928\% | 15.2059\% | 0.5 | 0.6 | 0\% | 0\% |
| 91 | 0 | 3 | 0.000000 | 14.8575\% | 16.3164\% | 0.4 | 0.5 | 0\% | 0\% |
| 92 | 0 | 3 | 0.000000 | 16.0363\% | 17.4115\% | 0.5 | 0.5 | 0\% | 0\% |
| 93 | 1 | 2 | 0.500000 | 17.3023\% | 19.0011\% | 0.3 | 0.4 | 289\% | 263\% |
| 94 | 0 | 1 | 0.000000 | 19.3428\% | 20.5761\% | 0.2 | 0.2 | 0\% | 0\% |
| 95 | 0 | 1 | 0.000000 | 21.7486\% | 22.1400\% | 0.2 | 0.2 | 0\% | 0\% |
| 96 | 0 | 0 | N/A | 23.5150\% | 23.7098\% | 0 | 0 | 0\% | 0\% |
| 97 | 0 | 0 | N/A | 23.5424\% | 25.2658\% | 0 | 0 | 0\% | 0\% |
| 98 | 0 | 0 | N/A | 23.5623\% | 27.4526\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 24.8785\% | 29.6244\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 50 | 3,210 |  |  |  | 46.4 | 82.3 | 108\% | 61\% |
| 100 or more | 0 | 0 | N/A | 25.4498\% | 36.3732\% | 0 | 0 | 0\% | 0\% |
| Total | 50 | 3,210 |  |  |  | 46.4 | 82.3 | 108\% | 61\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN AND WOMEN

|  | TABLE 2C |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 2 | 353 | 0.005666 | 0.9451\% | 0.6031\% | 3.3 | 2.1 | 60\% | 94\% |
| 42 | 3 | 435 | 0.006897 | 0.9666\% | 0.7491\% | 4.2 | 3.3 | 71\% | 92\% |
| 43 | 3 | 502 | 0.005976 | 0.9876\% | 0.8795\% | 5.0 | 4.4 | 61\% | 68\% |
| 44 | 1 | 554 | 0.001805 | 1.0100\% | 1.0155\% | 5.6 | 5.6 | 18\% | 18\% |
| 45 | 8 | 611 | 0.013093 | 1.0376\% | 1.1509\% | 6.3 | 7.0 | 126\% | 114\% |
| 46 | 2 | 622 | 0.003215 | 1.0660\% | 1.2815\% | 6.6 | 8.0 | 30\% | 25\% |
| 47 | 3 | 639 | 0.004695 | 1.0957\% | 1.4207\% | 7.0 | 9.1 | 43\% | 33\% |
| 48 | 6 | 656 | 0.009146 | 1.1210\% | 1.5174\% | 7.4 | 10.0 | 82\% | 60\% |
| 49 | 5 | 654 | 0.007645 | 1.1473\% | 1.6189\% | 7.5 | 10.6 | 67\% | 47\% |
| 50 | 6 | 648 | 0.009259 | 1.1698\% | 1.7136\% | 7.6 | 11.1 | 79\% | 54\% |
| 51 | 7 | 621 | 0.011272 | 1.1913\% | 1.8202\% | 7.4 | 11.3 | 95\% | 62\% |
| 52 | 6 | 604 | 0.009934 | 1.2116\% | 1.9106\% | 7.3 | 11.5 | 82\% | 52\% |
| 53 | 9 | 596 | 0.015101 | 1.2185\% | 1.9819\% | 7.3 | 11.8 | 124\% | 76\% |
| 54 | 3 | 590 | 0.005085 | 1.2245\% | 2.0601\% | 7.2 | 12.2 | 42\% | 25\% |
| 55 | 7 | 570 | 0.012281 | 1.2249\% | 2.1259\% | 7.0 | 12.1 | 100\% | 58\% |
| 56 | 6 | 572 | 0.010490 | 1.2821\% | 2.2048\% | 7.3 | 12.6 | 82\% | 48\% |
| 57 | 8 | 554 | 0.014440 | 1.3539\% | 2.2795\% | 7.5 | 12.6 | 107\% | 63\% |
| 58 | 5 | 507 | 0.009862 | 1.4240\% | 2.3751\% | 7.2 | 12.0 | 69\% | 42\% |
| 59 | 5 | 490 | 0.010204 | 1.5095\% | 2.4666\% | 7.4 | 12.1 | 68\% | 41\% |
| 60 | 6 | 468 | 0.012821 | 1.6024\% | 2.5585\% | 7.5 | 12.0 | 80\% | 50\% |
| 61 | 9 | 442 | 0.020362 | 1.7227\% | 2.6590\% | 7.6 | 11.8 | 118\% | 77\% |
| 62 | 6 | 406 | 0.014778 | 1.8373\% | 2.7649\% | 7.5 | 11.2 | 80\% | 53\% |
| 63 | 7 | 380 | 0.018421 | 1.9574\% | 2.9171\% | 7.4 | 11.1 | 94\% | 63\% |
| 64 | 5 | 347 | 0.014409 | 2.0898\% | 3.0622\% | 7.3 | 10.6 | 69\% | 47\% |
| 65 | 4 | 322 | 0.012422 | 2.2173\% | 3.2129\% | 7.1 | 10.3 | 56\% | 39\% |
| 66 | 3 | 280 | 0.010714 | 2.3713\% | 3.3602\% | 6.6 | 9.4 | 45\% | 32\% |
| 67 | 8 | 239 | 0.033473 | 2.5254\% | 3.5051\% | 6.0 | 8.4 | 133\% | 95\% |
| 68 | 5 | 220 | 0.022727 | 2.6846\% | 3.7330\% | 5.9 | 8.2 | 85\% | 61\% |
| 69 | 5 | 195 | 0.025641 | 2.8611\% | 3.9619\% | 5.6 | 7.7 | 90\% | 65\% |
| 70 | 6 | 172 | 0.034884 | 3.0376\% | 4.1877\% | 5.2 | 7.2 | 115\% | 83\% |
| 71 | 4 | 149 | 0.026846 | 3.2923\% | 4.4149\% | 4.9 | 6.6 | 82\% | 61\% |
| 72 | 3 | 133 | 0.022556 | 3.5676\% | 4.6412\% | 4.7 | 6.2 | 63\% | 49\% |
| 73 | 3 | 112 | 0.026786 | 3.8858\% | 5.0225\% | 4.4 | 5.6 | 69\% | 53\% |
| 74 | 3 | 97 | 0.030928 | 4.2019\% | 5.3898\% | 4.1 | 5.2 | 74\% | 57\% |
| 75 | 2 | 83 | 0.024096 | 4.5336\% | 5.7323\% | 3.8 | 4.8 | 53\% | 42\% |
| 76 | 4 | 77 | 0.051948 | 4.9120\% | 6.0778\% | 3.8 | 4.7 | 106\% | 85\% |
| 77 | 4 | 70 | 0.057143 | 5.4004\% | 6.4476\% | 3.8 | 4.5 | 106\% | 89\% |
| 78 | 1 | 64 | 0.015625 | 5.9126\% | 7.0143\% | 3.8 | 4.5 | 26\% | 22\% |
| 79 | 2 | 64 | 0.031250 | 6.6027\% | 7.6512\% | 4.2 | 4.9 | 47\% | 41\% |
| 80 | 6 | 62 | 0.096774 | 7.1820\% | 8.1866\% | 4.5 | 5.1 | 135\% | 118\% |
| 81 | 5 | 53 | 0.094340 | 7.8702\% | 8.7200\% | 4.2 | 4.6 | 120\% | 108\% |
| 82 | 4 | 45 | 0.088889 | 8.6729\% | 9.3042\% | 3.9 | 4.2 | 102\% | 96\% |
| 83 | 4 | 38 | 0.105263 | 9.2650\% | 10.0799\% | 3.5 | 3.8 | 114\% | 104\% |
| 84 | 4 | 32 | 0.125000 | 10.1391\% | 10.9806\% | 3.2 | 3.5 | 123\% | 114\% |
| 85 | 3 | 27 | 0.111111 | 10.7894\% | 11.7602\% | 2.9 | 3.2 | 103\% | 94\% |
| 86 | 3 | 23 | 0.130435 | 11.7850\% | 12.6070\% | 2.7 | 2.9 | 111\% | 103\% |
| 87 | 1 | 18 | 0.055556 | 12.8013\% | 13.3963\% | 2.3 | 2.4 | 43\% | 41\% |
| 88 | 1 | 13 | 0.076923 | 13.3514\% | 14.3287\% | 1.7 | 1.9 | 58\% | 54\% |
| 89 | 2 | 10 | 0.200000 | 13.8135\% | 15.1784\% | 1.4 | 1.5 | 145\% | 132\% |
| 90 | 0 | 6 | 0.000000 | 14.8841\% | 16.1775\% | 0.9 | 1.0 | 0\% | 0\% |
| 91 | 0 | 5 | 0.000000 | 16.9040\% | 17.5528\% | 0.8 | 0.9 | 0\% | 0\% |
| 92 | 1 | 5 | 0.200000 | 18.4619\% | 18.7174\% | 0.9 | 0.9 | 108\% | 107\% |
| 93 | 1 | 3 | 0.333333 | 19.5408\% | 20.1525\% | 0.6 | 0.6 | 171\% | 165\% |
| 94 | 1 | 2 | 0.500000 | 22.6003\% | 22.4017\% | 0.5 | 0.4 | 221\% | 223\% |
| 95 | 0 | 1 | 0.000000 | 21.7486\% | 22.1400\% | 0.2 | 0.2 | 0\% | 0\% |
| 96 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 97 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 98 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 221 | 15,441 |  |  |  | 271.6 | 371.5 | 81\% | 59\% |
| 100 or more | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| Total | 221 | 15,441 |  |  |  | 271.6 | 371.5 | 81\% | 59\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN

|  | TABLE 2A GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected $(7) /(3)$ | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 2 | 1,362 | 0.001468 | 0.9714\% | 0.6978\% | 13.2 | 9.5 | 15\% | 21\% |
| 45-49 | 14 | 2,350 | 0.005957 | 1.0928\% | 1.2623\% | 25.7 | 29.7 | 55\% | 47\% |
| 50-54 | 22 | 2,260 | 0.009735 | 1.2400\% | 1.7529\% | 28.0 | 39.6 | 79\% | 56\% |
| 55-59 | 27 | 2,180 | 0.012385 | 1.4290\% | 2.1711\% | 31.2 | 47.3 | 87\% | 57\% |
| 60-64 | 26 | 1,820 | 0.014286 | 1.8868\% | 2.7200\% | 34.3 | 49.5 | 76\% | 53\% |
| 65-69 | 23 | 1,126 | 0.020426 | 2.5672\% | 3.4886\% | 28.9 | 39.3 | 80\% | 59\% |
| 70-74 | 17 | 588 | 0.028912 | 3.6375\% | 4.6804\% | 21.4 | 27.5 | 79\% | 62\% |
| 75-79 | 12 | 298 | 0.040268 | 5.7105\% | 6.6753\% | 17.0 | 19.9 | 71\% | 60\% |
| 80-84 | 19 | 181 | 0.104972 | 8.9067\% | 9.5346\% | 16.1 | 17.3 | 118\% | 110\% |
| 85-89 | 7 | 58 | 0.120690 | 13.2182\% | 13.6857\% | 7.7 | 7.9 | 91\% | 88\% |
| 90-94 | 2 | 8 | 0.250000 | 21.2196\% | 20.3864\% | 1.7 | 1.6 | 118\% | 123\% |
| 95-99 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 171 | 12,231 |  |  |  | 225.2 | 289.1 | 76\% | 59\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS

## MORTALITY EXPERIENCE OF DISABILITY RETIREES

 WOMEN| Age | TABLE 2B GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total Exposed | Actual Rate | Expected <br> (7) / (3) | Proposed (8) / (3) | Expected | Proposed | Expected $(2) /(7)$ | Proposed $(\mathbf{2}) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 7 | 482 | 0.014523 | 1.0091\% | 1.2290\% | 4.9 | 5.9 | 144\% | 118\% |
| 45-49 | 10 | 832 | 0.012019 | 1.0997\% | 1.7979\% | 9.1 | 15.0 | 109\% | 67\% |
| 50-54 | 9 | 799 | 0.011264 | 1.0962\% | 2.2903\% | 8.8 | 18.3 | 103\% | 49\% |
| 55-59 | 4 | 513 | 0.007797 | 1.0292\% | 2.7596\% | 5.3 | 14.2 | 76\% | 28\% |
| 60-64 | 7 | 223 | 0.031390 | 1.3111\% | 3.2100\% | 2.9 | 7.2 | 239\% | 98\% |
| 65-69 | 2 | 130 | 0.015385 | 1.8412\% | 3.6835\% | 2.4 | 4.8 | 84\% | 42\% |
| 70-74 | 2 | 75 | 0.026667 | 2.5532\% | 4.3815\% | 1.9 | 3.3 | 104\% | 61\% |
| 75-79 | 1 | 60 | 0.016667 | 3.8632\% | 5.7407\% | 2.3 | 3.4 | 43\% | 29\% |
| 80-84 | 4 | 49 | 0.081633 | 6.4713\% | 8.1033\% | 3.2 | 4.0 | 126\% | 101\% |
| 85-89 | 3 | 33 | 0.090909 | 10.2377\% | 11.9062\% | 3.4 | 3.9 | 89\% | 76\% |
| 90-94 | 1 | 13 | 0.076923 | 15.4000\% | 16.9681\% | 2.0 | 2.2 | 50\% | 45\% |
| 95-99 | 0 | 1 | 0.000000 | 21.7486\% | 22.1400\% | 0.2 | 0.2 | 0\% | 0\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 50 | 3,210 |  |  |  | 46.4 | 82.3 | 108\% | 61\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS MORTALITY EXPERIENCE OF DISABILITY RETIREES <br> MEN AND WOMEN

| Age | TABLE 2C GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Deaths | Total <br> Exposed | Actual Rate | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 9 | 1,844 | 0.004881 | 0.9813\% | 0.8367\% | 18.1 | 15.4 | 50\% | 58\% |
| 45-49 | 24 | 3,182 | 0.007542 | 1.0946\% | 1.4023\% | 34.8 | 44.6 | 69\% | 54\% |
| 50-54 | 31 | 3,059 | 0.010134 | 1.2025\% | 1.8932\% | 36.8 | 57.9 | 84\% | 54\% |
| 55-59 | 31 | 2,693 | 0.011511 | 1.3529\% | 2.2832\% | 36.4 | 61.5 | 85\% | 50\% |
| 60-64 | 33 | 2,043 | 0.016153 | 1.8239\% | 2.7735\% | 37.3 | 56.7 | 89\% | 58\% |
| 65-69 | 25 | 1,256 | 0.019904 | 2.4921\% | 3.5087\% | 31.3 | 44.1 | 80\% | 57\% |
| 70-74 | 19 | 663 | 0.028658 | 3.5148\% | 4.6466\% | 23.3 | 30.8 | 82\% | 62\% |
| 75-79 | 13 | 358 | 0.036313 | 5.4009\% | 6.5187\% | 19.3 | 23.3 | 67\% | 56\% |
| 80-84 | 23 | 230 | 0.100000 | 8.3878\% | 9.2297\% | 19.3 | 21.2 | 119\% | 108\% |
| 85-89 | 10 | 91 | 0.109890 | 12.1373\% | 13.0404\% | 11.0 | 11.9 | 91\% | 84\% |
| 90-94 | 3 | 21 | 0.142857 | 17.6170\% | 18.2703\% | 3.7 | 3.8 | 81\% | 78\% |
| 95-99 | 0 | 1 | 0.000000 | 21.7486\% | 22.1400\% | 0.2 | 0.2 | 0\% | 0\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 221 | 15,441 |  |  |  | 271.6 | 371.5 | 81\% | 59\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN AND WOMEN

| Plan <br> Year <br> Ending <br> June 30, | TABLE 2D <br> Life Years Exposed | Actual <br> Deaths | Expected Deaths | 10-YEAR PERIOD ENDING 6/30/2013$\qquad$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / <br> Expected | $\begin{aligned} & \hline \text { Actual } \\ & \text { (3) } /(2) \\ & \hline \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 1,502 | 31 | 17.2 | 180\% | 2.0639\% | 1.1466\% |
| 2005 | 1,547 | 15 | 18.1 | 83\% | 0.9696\% | 1.1726\% |
| 2006 | 1,576 | 23 | 19.2 | 120\% | 1.4594\% | 1.2190\% |
| 2007 | 1,609 | 19 | 20.6 | 92\% | 1.1809\% | 1.2809\% |
| 2008 | 1,637 | 24 | 21.7 | 110\% | 1.4661\% | 1.3283\% |
| 2009 | 1,664 | 23 | 22.9 | 100\% | 1.3822\% | 1.3771\% |
| 2010 | 1,690 | 18 | 23.9 | 75\% | 1.0651\% | 1.4116\% |
| 2011 | 1,690 | 20 | 24.5 | 82\% | 1.1834\% | 1.4506\% |
| 2012 | 1,700 | 19 | 25.2 | 75\% | 1.1176\% | 1.4848\% |
| 2013 | 1,754 | 29 | 27.0 | 107\% | 1.6534\% | 1.5399\% |
| Total | 16,369 | 221 | 220.5 | 100\% | 1.3501\% | 1.3469\% |

[^8]
# NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS <br> MEN 

| Service | TABLE 3A |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Withdrawals |  | Actual/Expected |  |
|  | Actual Withdrawals | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2)/(3) } \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | Proposed $\text { (3) } \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 0 | 18 | 318 | 0.0566 | 5.00\% | 5.00\% | 15.9 | 15.9 | 113\% | 113\% |
| 1 | 52 | 1,067 | 0.0487 | 4.00\% | 4.00\% | 42.7 | 42.7 | 122\% | 122\% |
| 2 | 42 | 1,378 | 0.0305 | 3.00\% | 3.00\% | 41.3 | 41.3 | 102\% | 102\% |
| 3 | 16 | 1,146 | 0.0140 | 2.00\% | 2.00\% | 22.9 | 22.9 | 70\% | 70\% |
| 4 | 13 | 911 | 0.0143 | 1.50\% | 1.50\% | 13.7 | 13.7 | 95\% | 95\% |
| 5 | 5 | 793 | 0.0063 | 1.00\% | 1.00\% | 7.9 | 7.9 | 63\% | 63\% |
| 6 | 9 | 654 | 0.0138 | 0.90\% | 0.90\% | 5.9 | 5.9 | 153\% | 153\% |
| 7 | 6 | 562 | 0.0107 | 0.80\% | 0.80\% | 4.5 | 4.5 | 133\% | 133\% |
| 8 | 1 | 620 | 0.0016 | 0.70\% | 0.70\% | 4.3 | 4.3 | 23\% | 23\% |
| 9 | 2 | 541 | 0.0037 | 0.60\% | 0.60\% | 3.2 | 3.2 | 62\% | 62\% |
| 10 | 5 | 681 | 0.0073 | 0.50\% | 0.50\% | 3.4 | 3.4 | 147\% | 147\% |
| 11 | 5 | 757 | 0.0066 | 0.50\% | 0.50\% | 3.8 | 3.8 | 132\% | 132\% |
| 12 | 4 | 704 | 0.0057 | 0.50\% | 0.50\% | 3.5 | 3.5 | 114\% | 114\% |
| 13 | 2 | 639 | 0.0031 | 0.50\% | 0.50\% | 3.2 | 3.2 | 63\% | 63\% |
| 14 | 3 | 341 | 0.0088 | 0.50\% | 0.50\% | 1.7 | 1.7 | 176\% | 176\% |
| 15 | 2 | 217 | 0.0092 | 0.50\% | 0.50\% | 1.1 | 1.1 | 184\% | 184\% |
| 16 | 2 | 372 | 0.0054 | 0.50\% | 0.50\% | 1.9 | 1.9 | 108\% | 108\% |
| 17 | 7 | 898 | 0.0078 | 0.50\% | 0.50\% | 4.5 | 4.5 | 156\% | 156\% |
| 18 | 21 | 1,297 | 0.0162 | 0.50\% | 0.50\% | 6.5 | 6.5 | 324\% | 324\% |
| 19 | 0 | 263 | 0.0000 | 0.50\% | 0.50\% | 1.3 | 1.3 | 0\% | 0\% |
| 20 | 5 | 214 | 0.0234 | 0.50\% | 0.50\% | 1.1 | 1.1 | 467\% | 467\% |
| 21 | 0 | 185 | 0.0000 | 0.50\% | 0.50\% | 0.9 | 0.9 | 0\% | 0\% |
| 22 | 1 | 178 | 0.0056 | 0.50\% | 0.50\% | 0.9 | 0.9 | 112\% | 112\% |
| 23 | 2 | 145 | 0.0138 | 0.50\% | 0.50\% | 0.7 | 0.7 | 276\% | 276\% |
| 24 | 0 | 12 | 0.0000 | 0.50\% | 0.50\% | 0.1 | 0.1 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| 27 | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| 28 | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| 29 | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| 30 | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 223 | 14,893 | 0.0150 |  |  | 196.9 | 196.9 | 113\% | 113\% |
| 31 or more | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| Total | 223 | 14,893 | 0.0150 |  |  | 196.9 | 196.9 | 113\% | 113\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS WOMEN

| Service | TABLE 3B |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Withdrawals | Total Exposed | Actual Rate$(2) /(3)$ | Assumed Probability |  | Expected Withdrawals |  | Actual/Expected |  |
|  |  |  |  | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 0 | 8 | 225 | 0.0356 | 5.00\% | 5.00\% | 11.3 | 11.3 | 71\% | 71\% |
| 1 | 28 | 781 | 0.0359 | 4.00\% | 4.00\% | 31.2 | 31.2 | 90\% | 90\% |
| 2 | 33 | 1,110 | 0.0297 | 3.00\% | 3.00\% | 33.3 | 33.3 | 99\% | 99\% |
| 3 | 13 | 1,027 | 0.0127 | 2.00\% | 2.00\% | 20.5 | 20.5 | 63\% | 63\% |
| 4 | 9 | 858 | 0.0105 | 1.50\% | 1.50\% | 12.9 | 12.9 | 70\% | 70\% |
| 5 | 4 | 783 | 0.0051 | 1.00\% | 1.00\% | 7.8 | 7.8 | 51\% | 51\% |
| 6 | 4 | 670 | 0.0060 | 0.90\% | 0.90\% | 6.0 | 6.0 | 66\% | 66\% |
| 7 | 8 | 671 | 0.0119 | 0.80\% | 0.80\% | 5.4 | 5.4 | 149\% | 149\% |
| 8 | 10 | 757 | 0.0132 | 0.70\% | 0.70\% | 5.3 | 5.3 | 189\% | 189\% |
| 9 | 5 | 697 | 0.0072 | 0.60\% | 0.60\% | 4.2 | 4.2 | 120\% | 120\% |
| 10 | 5 | 719 | 0.0070 | 0.50\% | 0.50\% | 3.6 | 3.6 | 139\% | 139\% |
| 11 | 4 | 725 | 0.0055 | 0.50\% | 0.50\% | 3.6 | 3.6 | 110\% | 110\% |
| 12 | 2 | 640 | 0.0031 | 0.50\% | 0.50\% | 3.2 | 3.2 | 63\% | 63\% |
| 13 | 3 | 567 | 0.0053 | 0.50\% | 0.50\% | 2.8 | 2.8 | 106\% | 106\% |
| 14 | 1 | 354 | 0.0028 | 0.50\% | 0.50\% | 1.8 | 1.8 | 56\% | 56\% |
| 15 | 0 | 218 | 0.0000 | 0.50\% | 0.50\% | 1.1 | 1.1 | 0\% | 0\% |
| 16 | 2 | 297 | 0.0067 | 0.50\% | 0.50\% | 1.5 | 1.5 | 135\% | 135\% |
| 17 | 5 | 694 | 0.0072 | 0.50\% | 0.50\% | 3.5 | 3.5 | 144\% | 144\% |
| 18 | 13 | 962 | 0.0135 | 0.50\% | 0.50\% | 4.8 | 4.8 | 270\% | 270\% |
| 19 | 2 | 175 | 0.0114 | 0.50\% | 0.50\% | 0.9 | 0.9 | 229\% | 229\% |
| 20 | 3 | 119 | 0.0252 | 0.50\% | 0.50\% | 0.6 | 0.6 | 504\% | 504\% |
| 21 | 2 | 94 | 0.0213 | 0.50\% | 0.50\% | 0.5 | 0.5 | 426\% | 426\% |
| 22 | 0 | 92 | 0.0000 | 0.50\% | 0.50\% | 0.5 | 0.5 | 0\% | 0\% |
| 23 | 0 | 74 | 0.0000 | 0.50\% | 0.50\% | 0.4 | 0.4 | 0\% | 0\% |
| 24 | 0 | 2 | 0.0000 | 0.50\% | 0.50\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| 27 | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| 28 | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| 29 | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| 30 | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| Total | 164 | 13,311 | 0.0123 |  |  | 166.6 | 166.6 | 98\% | 98\% |
| 31 or more | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| Total | 164 | 13,311 | 0.0123 |  |  | 166.6 | 166.6 | 98\% | 98\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS
WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS
MEN AND WOMEN

| Service | TABLE 3C |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Withdrawals | Total Exposed | $\begin{gathered} \text { Actual Rate } \\ \text { (2) /(3) } \\ \hline \end{gathered}$ | Assumed Probability |  | Expected Withdrawals |  | Actual/Expected |  |
|  |  |  |  | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 0 | 26 | 543 | 0.0479 | 5.00\% | 5.00\% | 27.2 | 27.2 | 96\% | 96\% |
| 1 | 80 | 1,848 | 0.0433 | 4.00\% | 4.00\% | 73.9 | 73.9 | 108\% | 108\% |
| 2 | 75 | 2,488 | 0.0301 | 3.00\% | 3.00\% | 74.6 | 74.6 | 100\% | 100\% |
| 3 | 29 | 2,173 | 0.0133 | 2.00\% | 2.00\% | 43.5 | 43.5 | 67\% | 67\% |
| 4 | 22 | 1,769 | 0.0124 | 1.50\% | 1.50\% | 26.5 | 26.5 | 83\% | 83\% |
| 5 | 9 | 1,576 | 0.0057 | 1.00\% | 1.00\% | 15.8 | 15.8 | 57\% | 57\% |
| 6 | 13 | 1,324 | 0.0098 | 0.90\% | 0.90\% | 11.9 | 11.9 | 109\% | 109\% |
| 7 | 14 | 1,233 | 0.0114 | 0.80\% | 0.80\% | 9.9 | 9.9 | 142\% | 142\% |
| 8 | 11 | 1,377 | 0.0080 | 0.70\% | 0.70\% | 9.6 | 9.6 | 114\% | 114\% |
| 9 | 7 | 1,238 | 0.0057 | 0.60\% | 0.60\% | 7.4 | 7.4 | 94\% | 94\% |
| 10 | 10 | 1,400 | 0.0071 | 0.50\% | 0.50\% | 7.0 | 7.0 | 143\% | 143\% |
| 11 | 9 | 1,482 | 0.0061 | 0.50\% | 0.50\% | 7.4 | 7.4 | 121\% | 121\% |
| 12 | 6 | 1,344 | 0.0045 | 0.50\% | 0.50\% | 6.7 | 6.7 | 89\% | 89\% |
| 13 | 5 | 1,206 | 0.0041 | 0.50\% | 0.50\% | 6.0 | 6.0 | 83\% | 83\% |
| 14 | 4 | 695 | 0.0058 | 0.50\% | 0.50\% | 3.5 | 3.5 | 115\% | 115\% |
| 15 | 2 | 435 | 0.0046 | 0.50\% | 0.50\% | 2.2 | 2.2 | 92\% | 92\% |
| 16 | 4 | 669 | 0.0060 | 0.50\% | 0.50\% | 3.3 | 3.3 | 120\% | 120\% |
| 17 | 12 | 1,592 | 0.0075 | 0.50\% | 0.50\% | 8.0 | 8.0 | 151\% | 151\% |
| 18 | 34 | 2,259 | 0.0151 | 0.50\% | 0.50\% | 11.3 | 11.3 | 301\% | 301\% |
| 19 | 2 | 438 | 0.0046 | 0.50\% | 0.50\% | 2.2 | 2.2 | 91\% | 91\% |
| 20 | 8 | 333 | 0.0240 | 0.50\% | 0.50\% | 1.7 | 1.7 | 480\% | 480\% |
| 21 | 2 | 279 | 0.0072 | 0.50\% | 0.50\% | 1.4 | 1.4 | 143\% | 143\% |
| 22 | 1 | 270 | 0.0037 | 0.50\% | 0.50\% | 1.4 | 1.4 | 74\% | 74\% |
| 23 | 2 | 219 | 0.0091 | 0.50\% | 0.50\% | 1.1 | 1.1 | 183\% | 183\% |
| 24 | 0 | 14 | 0.0000 | 0.50\% | 0.50\% | 0.1 | 0.1 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| 27 | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| 28 | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| 29 | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| 30 | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| Total | 387 | 28,204 | 0.0137 |  |  | 363.5 | 363.5 | 106\% | 106\% |
| 31 or more | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| Total | 387 | 28,204 | 0.0137 |  |  | 363.5 | 363.5 | 106\% | 106\% |

# NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS <br> MEN 

| Service | TABLE 3A |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Withdrawals |  | Actual/Expected |  |
|  | Actual Withdrawals | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected $(2) /(7)$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 0 | 53 | 848 | 0.0625 | 5.00\% | 5.00\% | 42.4 | 42.4 | 125\% | 125\% |
| 1 | 94 | 1,820 | 0.0516 | 4.00\% | 4.00\% | 72.8 | 72.8 | 129\% | 129\% |
| 2 | 61 | 2,078 | 0.0294 | 3.00\% | 3.00\% | 62.3 | 62.3 | 98\% | 98\% |
| 3 | 26 | 1,772 | 0.0147 | 2.00\% | 2.00\% | 35.4 | 35.4 | 73\% | 73\% |
| 4 | 31 | 1,596 | 0.0194 | 1.50\% | 1.50\% | 23.9 | 23.9 | 129\% | 129\% |
| 5 | 18 | 1,402 | 0.0128 | 1.00\% | 1.00\% | 14.0 | 14.0 | 128\% | 128\% |
| 6 | 21 | 1,400 | 0.0150 | 0.90\% | 0.90\% | 12.6 | 12.6 | 167\% | 167\% |
| 7 | 19 | 1,392 | 0.0136 | 0.80\% | 0.80\% | 11.1 | 11.1 | 171\% | 171\% |
| 8 | 8 | 1,393 | 0.0057 | 0.70\% | 0.70\% | 9.8 | 9.8 | 82\% | 82\% |
| 9 | 9 | 1,235 | 0.0073 | 0.60\% | 0.60\% | 7.4 | 7.4 | 121\% | 121\% |
| 10 | 9 | 1,053 | 0.0085 | 0.50\% | 0.50\% | 5.3 | 5.3 | 171\% | 171\% |
| 11 | 8 | 992 | 0.0081 | 0.50\% | 0.50\% | 5.0 | 5.0 | 161\% | 161\% |
| 12 | 7 | 1,103 | 0.0063 | 0.50\% | 0.50\% | 5.5 | 5.5 | 127\% | 127\% |
| 13 | 12 | 1,647 | 0.0073 | 0.50\% | 0.50\% | 8.2 | 8.2 | 146\% | 146\% |
| 14 | 14 | 1,814 | 0.0077 | 0.50\% | 0.50\% | 9.1 | 9.1 | 154\% | 154\% |
| 15 | 12 | 2,034 | 0.0059 | 0.50\% | 0.50\% | 10.2 | 10.2 | 118\% | 118\% |
| 16 | 15 | 2,654 | 0.0057 | 0.50\% | 0.50\% | 13.3 | 13.3 | 113\% | 113\% |
| 17 | 10 | 2,901 | 0.0034 | 0.50\% | 0.50\% | 14.5 | 14.5 | 69\% | 69\% |
| 18 | 30 | 3,209 | 0.0093 | 0.50\% | 0.50\% | 16.0 | 16.0 | 187\% | 187\% |
| 19 | 3 | 586 | 0.0051 | 0.50\% | 0.50\% | 2.9 | 2.9 | 102\% | 102\% |
| 20 | 5 | 349 | 0.0143 | 0.50\% | 0.50\% | 1.7 | 1.7 | 287\% | 287\% |
| 21 | 1 | 331 | 0.0030 | 0.50\% | 0.50\% | 1.7 | 1.7 | 60\% | 60\% |
| 22 | 2 | 307 | 0.0065 | 0.50\% | 0.50\% | 1.5 | 1.5 | 130\% | 130\% |
| 23 | 2 | 243 | 0.0082 | 0.50\% | 0.50\% | 1.2 | 1.2 | 165\% | 165\% |
| 24 | 0 | 19 | 0.0000 | 0.50\% | 0.50\% | 0.1 | 0.1 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| 27 | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| 28 | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| 29 | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| 30 | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 470 | 34,178 | 0.0138 |  |  | 388.0 | 388.0 | 121\% | 121\% |
| 31 or more | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| Total | 470 | 34,178 | 0.0138 |  |  | 388.0 | 388.0 | 121\% | 121\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS WOMEN

| Service | TABLE 3B |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Withdrawals | Total Exposed | Actual Rate <br> (2) / (3) | Assumed Probability |  | Expected Withdrawals |  | Actual/Expected |  |
|  |  |  |  | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 0 | 33 | 664 | 0.0497 | 5.00\% | 5.00\% | 33.2 | 33.2 | 99\% | 99\% |
| 1 | 57 | 1,469 | 0.0388 | 4.00\% | 4.00\% | 58.8 | 58.8 | 97\% | 97\% |
| 2 | 55 | 1,824 | 0.0302 | 3.00\% | 3.00\% | 54.7 | 54.7 | 101\% | 101\% |
| 3 | 26 | 1,746 | 0.0149 | 2.00\% | 2.00\% | 34.9 | 34.9 | 74\% | 74\% |
| 4 | 20 | 1,662 | 0.0120 | 1.50\% | 1.50\% | 24.9 | 24.9 | 80\% | 80\% |
| 5 | 14 | 1,522 | 0.0092 | 1.00\% | 1.00\% | 15.2 | 15.2 | 92\% | 92\% |
| 6 | 11 | 1,445 | 0.0076 | 0.90\% | 0.90\% | 13.0 | 13.0 | 85\% | 85\% |
| 7 | 25 | 1,465 | 0.0171 | 0.80\% | 0.80\% | 11.7 | 11.7 | 213\% | 213\% |
| 8 | 22 | 1,453 | 0.0151 | 0.70\% | 0.70\% | 10.2 | 10.2 | 216\% | 216\% |
| 9 | 16 | 1,309 | 0.0122 | 0.60\% | 0.60\% | 7.9 | 7.9 | 204\% | 204\% |
| 10 | 6 | 1,093 | 0.0055 | 0.50\% | 0.50\% | 5.5 | 5.5 | 110\% | 110\% |
| 11 | 8 | 964 | 0.0083 | 0.50\% | 0.50\% | 4.8 | 4.8 | 166\% | 166\% |
| 12 | 5 | 951 | 0.0053 | 0.50\% | 0.50\% | 4.8 | 4.8 | 105\% | 105\% |
| 13 | 9 | 1,307 | 0.0069 | 0.50\% | 0.50\% | 6.5 | 6.5 | 138\% | 138\% |
| 14 | 12 | 1,421 | 0.0084 | 0.50\% | 0.50\% | 7.1 | 7.1 | 169\% | 169\% |
| 15 | 10 | 1,452 | 0.0069 | 0.50\% | 0.50\% | 7.3 | 7.3 | 138\% | 138\% |
| 16 | 14 | 1,770 | 0.0079 | 0.50\% | 0.50\% | 8.9 | 8.9 | 158\% | 158\% |
| 17 | 12 | 1,895 | 0.0063 | 0.50\% | 0.50\% | 9.5 | 9.5 | 127\% | 127\% |
| 18 | 18 | 2,016 | 0.0089 | 0.50\% | 0.50\% | 10.1 | 10.1 | 179\% | 179\% |
| 19 | 3 | 324 | 0.0093 | 0.50\% | 0.50\% | 1.6 | 1.6 | 185\% | 185\% |
| 20 | 4 | 176 | 0.0227 | 0.50\% | 0.50\% | 0.9 | 0.9 | 455\% | 455\% |
| 21 | 2 | 149 | 0.0134 | 0.50\% | 0.50\% | 0.7 | 0.7 | 268\% | 268\% |
| 22 | 1 | 140 | 0.0071 | 0.50\% | 0.50\% | 0.7 | 0.7 | 143\% | 143\% |
| 23 | 0 | 115 | 0.0000 | 0.50\% | 0.50\% | 0.6 | 0.6 | 0\% | 0\% |
| 24 | 0 | 7 | 0.0000 | 0.50\% | 0.50\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 1 | 0.0000 | 0.50\% | 0.50\% | 0.0 | 0.0 | 0\% | 0\% |
| 26 | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| 27 | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| 28 | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| 29 | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| 30 | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| Total | 383 | 28,340 | 0.0135 |  |  | 333.4 | 333.4 | 115\% | 115\% |
| 31 or more | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| Total | 383 | 28,340 | 0.0135 |  |  | 333.4 | 333.4 | 115\% | 115\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS
WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS
MEN AND WOMEN


NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| $\begin{gathered} \text { Plan } \\ \text { Year } \\ \text { Ending } \\ \text { June 30, } \end{gathered}$ | TABLE 3D$\begin{gathered} \text { Life Years } \\ \text { Exposed } \\ \hline \end{gathered}$ | Actual <br> Withdrawals | Expected Withdrawals | 10-YEAR PERIOD ENDING 6/30/2013 Withdrawal Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / Expected | $\begin{aligned} & \text { Actual } \\ & \text { (3) } /(2) \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 9,339 | 103 | 100.2 | 103\% | 1.10\% | 1.07\% |
| 2005 | 8,786 | 119 | 97.7 | 122\% | 1.35\% | 1.11\% |
| 2006 | 8,386 | 122 | 100.0 | 122\% | 1.45\% | 1.19\% |
| 2007 | 7,803 | 122 | 104.0 | 117\% | 1.56\% | 1.33\% |
| 2008 | 7,720 | 131 | 112.6 | 116\% | 1.70\% | 1.46\% |
| 2009 | 7,319 | 109 | 107.8 | 101\% | 1.49\% | 1.47\% |
| 2010 | 6,760 | 69 | 103.8 | 66\% | 1.02\% | 1.54\% |
| 2011 | 6,405 | 78 | 87.0 | 90\% | 1.22\% | 1.36\% |
| 2012 | 6,287 | 21 | 76.2 | 28\% | 0.33\% | 1.21\% |
| 2013 | 6,469 | 150 | 81.3 | 185\% | 2.32\% | 1.26\% |
| Total | 75,274 | 1,024 | 970.7 | 105\% | 1.36\% | 1.29\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY TOTAL - MEN AND WOMEN

|  | TABLE 4A |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements <br> Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 9 | 31 | 0.2903 | 65.81\% | 55.81\% | 20.4 | 17.3 | 44\% | 52\% |
| 41 | 30 | 96 | 0.3125 | 67.40\% | 57.40\% | 64.7 | 55.1 | 46\% | 54\% |
| 42 | 41 | 132 | 0.3106 | 66.59\% | 56.59\% | 87.9 | 74.7 | 47\% | 55\% |
| 43 | 59 | 163 | 0.3620 | 67.06\% | 57.06\% | 109.3 | 93.0 | 54\% | 63\% |
| 44 | 49 | 160 | 0.3063 | 67.31\% | 57.31\% | 107.7 | 91.7 | 45\% | 53\% |
| 45 | 67 | 169 | 0.3964 | 66.69\% | 56.69\% | 112.7 | 95.8 | 59\% | 70\% |
| 46 | 50 | 186 | 0.2688 | 65.32\% | 55.32\% | 121.5 | 102.9 | 41\% | 49\% |
| 47 | 42 | 146 | 0.2877 | 64.79\% | 54.79\% | 94.6 | 80.0 | 44\% | 53\% |
| 48 | 41 | 132 | 0.3106 | 65.30\% | 55.30\% | 86.2 | 73.0 | 48\% | 56\% |
| 49 | 47 | 137 | 0.3431 | 64.96\% | 54.96\% | 89.0 | 75.3 | 53\% | 62\% |
| 50 | 37 | 113 | 0.3274 | 64.60\% | 54.60\% | 73.0 | 61.7 | 51\% | 60\% |
| 51 | 37 | 111 | 0.3333 | 64.41\% | 54.41\% | 71.5 | 60.4 | 52\% | 61\% |
| 52 | 26 | 74 | 0.3514 | 65.00\% | 55.00\% | 48.1 | 40.7 | 54\% | 64\% |
| 53 | 22 | 67 | 0.3284 | 64.18\% | 54.18\% | 43.0 | 36.3 | 51\% | 61\% |
| 54 | 19 | 64 | 0.2969 | 64.38\% | 54.38\% | 41.2 | 34.8 | 46\% | 55\% |
| 55 | 11 | 43 | 0.2558 | 64.19\% | 54.19\% | 27.6 | 23.3 | 40\% | 47\% |
| 56 | 19 | 56 | 0.3393 | 66.07\% | 56.07\% | 37.0 | 31.4 | 51\% | 61\% |
| 57 | 15 | 33 | 0.4545 | 66.06\% | 56.06\% | 21.8 | 18.5 | 69\% | 81\% |
| 58 | 11 | 26 | 0.4231 | 64.62\% | 54.62\% | 16.8 | 14.2 | 65\% | 77\% |
| 59 | 8 | 28 | 0.2857 | 66.07\% | 56.07\% | 18.5 | 15.7 | 43\% | 51\% |
| 60 | 5 | 12 | 0.4167 | 65.83\% | 55.83\% | 7.9 | 6.7 | 63\% | 75\% |
| 61 | 2 | 5 | 0.4000 | 62.00\% | 52.00\% | 3.1 | 2.6 | 65\% | 77\% |
| 62 | 4 | 8 | 0.5000 | 61.25\% | 51.25\% | 4.9 | 4.1 | 82\% | 98\% |
| 63 | 1 | 2 | 0.5000 | 100.00\% | 50.00\% | 2.0 | 1.0 | 50\% | 100\% |
| 64 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 0 | 9 | 0.0000 | 100.00\% | 50.00\% | 9.0 | 4.5 | 0\% | 0\% |
| 66 | 1 | 4 | 0.2500 | 100.00\% | 50.00\% | 4.0 | 2.0 | 25\% | 50\% |
| 67 | 0 | 2 | 0.0000 | 100.00\% | 50.00\% | 2.0 | 1.0 | 0\% | 0\% |
| 68 | 0 | 2 | 0.0000 | 100.00\% | 50.00\% | 2.0 | 1.0 | 0\% | 0\% |
| 69 | 0 | 1 | 0.0000 | 100.00\% | 50.00\% | 1.0 | 0.5 | 0\% | 0\% |
| 70 | 1 | 1 | 1.0000 | 100.00\% | 100.00\% | 1.0 | 1.0 | 100\% | 100\% |
| Subtotal | 654 | 2,013 |  |  |  | 1,329.4 | 1,120.2 | 49\% | 58\% |
| Other | 0 | 8 | 0.0000 | 100.00\% | 100.00\% | 8.0 | 8.0 | 0\% | 0\% |
| Total | 654 | 2,021 |  |  |  | 1,337.4 | 1,128.2 | 49\% | 58\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 4B |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements <br> Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } / \text { (3) } \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $\text { (3) } \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 7 | 18 | 0.3889 | 70.00\% | 60.00\% | 12.6 | 10.8 | 56\% | 65\% |
| 41 | 22 | 71 | 0.3099 | 70.00\% | 60.00\% | 49.7 | 42.6 | 44\% | 52\% |
| 42 | 27 | 87 | 0.3103 | 70.00\% | 60.00\% | 60.9 | 52.2 | 44\% | 52\% |
| 43 | 40 | 115 | 0.3478 | 70.00\% | 60.00\% | 80.5 | 69.0 | 50\% | 58\% |
| 44 | 38 | 117 | 0.3248 | 70.00\% | 60.00\% | 81.9 | 70.2 | 46\% | 54\% |
| 45 | 50 | 113 | 0.4425 | 70.00\% | 60.00\% | 79.1 | 67.8 | 63\% | 74\% |
| 46 | 28 | 99 | 0.2828 | 70.00\% | 60.00\% | 69.3 | 59.4 | 40\% | 47\% |
| 47 | 19 | 70 | 0.2714 | 70.00\% | 60.00\% | 49.0 | 42.0 | 39\% | 45\% |
| 48 | 18 | 70 | 0.2571 | 70.00\% | 60.00\% | 49.0 | 42.0 | 37\% | 43\% |
| 49 | 23 | 68 | 0.3382 | 70.00\% | 60.00\% | 47.6 | 40.8 | 48\% | 56\% |
| 50 | 14 | 52 | 0.2692 | 70.00\% | 60.00\% | 36.4 | 31.2 | 38\% | 45\% |
| 51 | 20 | 49 | 0.4082 | 70.00\% | 60.00\% | 34.3 | 29.4 | 58\% | 68\% |
| 52 | 15 | 37 | 0.4054 | 70.00\% | 60.00\% | 25.9 | 22.2 | 58\% | 68\% |
| 53 | 7 | 28 | 0.2500 | 70.00\% | 60.00\% | 19.6 | 16.8 | 36\% | 42\% |
| 54 | 10 | 28 | 0.3571 | 70.00\% | 60.00\% | 19.6 | 16.8 | 51\% | 60\% |
| 55 | 5 | 18 | 0.2778 | 70.00\% | 60.00\% | 12.6 | 10.8 | 40\% | 46\% |
| 56 | 13 | 34 | 0.3824 | 70.00\% | 60.00\% | 23.8 | 20.4 | 55\% | 64\% |
| 57 | 11 | 20 | 0.5500 | 70.00\% | 60.00\% | 14.0 | 12.0 | 79\% | 92\% |
| 58 | 4 | 12 | 0.3333 | 70.00\% | 60.00\% | 8.4 | 7.2 | 48\% | 56\% |
| 59 | 8 | 17 | 0.4706 | 70.00\% | 60.00\% | 11.9 | 10.2 | 67\% | 78\% |
| 60 | 4 | 7 | 0.5714 | 70.00\% | 60.00\% | 4.9 | 4.2 | 82\% | 95\% |
| 61 | 0 | 1 | 0.0000 | 70.00\% | 60.00\% | 0.7 | 0.6 | 0\% | 0\% |
| 62 | 0 | 1 | 0.0000 | 70.00\% | 60.00\% | 0.7 | 0.6 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 100.00\% | 60.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 100.00\% | 60.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 100.00\% | 60.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 100.00\% | 60.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 100.00\% | 60.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 100.00\% | 60.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 100.00\% | 60.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 383 | 1,132 |  |  |  | 792.4 | 679.2 | 48\% | 56\% |
| Other | 0 | 4 | 0.0000 | 100.00\% | 100.00\% | 4.0 | 4.0 | 0\% | 0\% |
| Total | 383 | 1,136 |  |  |  | 796.4 | 683.2 | 48\% | 56\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY MEN AND WOMEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 4C |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements <br> Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } / \text { (3) } \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $\text { (3) } \times(5)$ | Proposed $(3) \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 2 | 13 | 0.1538 | 60.00\% | 50.00\% | 7.8 | 6.5 | 26\% | 31\% |
| 41 | 8 | 25 | 0.3200 | 60.00\% | 50.00\% | 15.0 | 12.5 | 53\% | 64\% |
| 42 | 14 | 45 | 0.3111 | 60.00\% | 50.00\% | 27.0 | 22.5 | 52\% | 62\% |
| 43 | 19 | 48 | 0.3958 | 60.00\% | 50.00\% | 28.8 | 24.0 | 66\% | 79\% |
| 44 | 11 | 43 | 0.2558 | 60.00\% | 50.00\% | 25.8 | 21.5 | 43\% | 51\% |
| 45 | 17 | 56 | 0.3036 | 60.00\% | 50.00\% | 33.6 | 28.0 | 51\% | 61\% |
| 46 | 22 | 87 | 0.2529 | 60.00\% | 50.00\% | 52.2 | 43.5 | 42\% | 51\% |
| 47 | 23 | 76 | 0.3026 | 60.00\% | 50.00\% | 45.6 | 38.0 | 50\% | 61\% |
| 48 | 23 | 62 | 0.3710 | 60.00\% | 50.00\% | 37.2 | 31.0 | 62\% | 74\% |
| 49 | 24 | 69 | 0.3478 | 60.00\% | 50.00\% | 41.4 | 34.5 | 58\% | 70\% |
| 50 | 23 | 61 | 0.3770 | 60.00\% | 50.00\% | 36.6 | 30.5 | 63\% | 75\% |
| 51 | 17 | 62 | 0.2742 | 60.00\% | 50.00\% | 37.2 | 31.0 | 46\% | 55\% |
| 52 | 11 | 37 | 0.2973 | 60.00\% | 50.00\% | 22.2 | 18.5 | 50\% | 59\% |
| 53 | 15 | 39 | 0.3846 | 60.00\% | 50.00\% | 23.4 | 19.5 | 64\% | 77\% |
| 54 | 9 | 36 | 0.2500 | 60.00\% | 50.00\% | 21.6 | 18.0 | 42\% | 50\% |
| 55 | 6 | 25 | 0.2400 | 60.00\% | 50.00\% | 15.0 | 12.5 | 40\% | 48\% |
| 56 | 6 | 22 | 0.2727 | 60.00\% | 50.00\% | 13.2 | 11.0 | 45\% | 55\% |
| 57 | 4 | 13 | 0.3077 | 60.00\% | 50.00\% | 7.8 | 6.5 | 51\% | 62\% |
| 58 | 7 | 14 | 0.5000 | 60.00\% | 50.00\% | 8.4 | 7.0 | 83\% | 100\% |
| 59 | 0 | 11 | 0.0000 | 60.00\% | 50.00\% | 6.6 | 5.5 | 0\% | 0\% |
| 60 | 1 | 5 | 0.2000 | 60.00\% | 50.00\% | 3.0 | 2.5 | 33\% | 40\% |
| 61 | 2 | 4 | 0.5000 | 60.00\% | 50.00\% | 2.4 | 2.0 | 83\% | 100\% |
| 62 | 4 | 7 | 0.5714 | 60.00\% | 50.00\% | 4.2 | 3.5 | 95\% | 114\% |
| 63 | 1 | 2 | 0.5000 | 100.00\% | 50.00\% | 2.0 | 1.0 | 50\% | 100\% |
| 64 | 0 | 0 | N/A | 100.00\% | 50.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 0 | 9 | 0.0000 | 100.00\% | 50.00\% | 9.0 | 4.5 | 0\% | 0\% |
| 66 | 1 | 4 | 0.2500 | 100.00\% | 50.00\% | 4.0 | 2.0 | 25\% | 50\% |
| 67 | 0 | 2 | 0.0000 | 100.00\% | 50.00\% | 2.0 | 1.0 | 0\% | 0\% |
| 68 | 0 | 2 | 0.0000 | 100.00\% | 50.00\% | 2.0 | 1.0 | 0\% | 0\% |
| 69 | 0 | 1 | 0.0000 | 100.00\% | 50.00\% | 1.0 | 0.5 | 0\% | 0\% |
| 70 | 1 | 1 | 1.0000 | 100.00\% | 100.00\% | 1.0 | 1.0 | 100\% | 100\% |
| Subtotal | 271 | 881 |  |  |  | 537.0 | 441.0 | 50\% | 61\% |
| Other | 0 | 4 | 0.0000 | 100.00\% | 100.00\% | 4.0 | 4.0 | 0\% | 0\% |
| Total | 271 | 885 |  |  |  | 541.0 | 445.0 | 50\% | 61\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY TOTAL - MEN AND WOMEN

|  | TABLE 4A |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \quad(2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 88 | 210 | 0.4190 | 66.57\% | 56.57\% | 139.8 | 118.8 | 63\% | 74\% |
| 41 | 189 | 427 | 0.4426 | 66.65\% | 56.65\% | 284.6 | 241.9 | 66\% | 78\% |
| 42 | 246 | 561 | 0.4385 | 66.45\% | 56.45\% | 372.8 | 316.7 | 66\% | 78\% |
| 43 | 273 | 600 | 0.4550 | 66.33\% | 56.33\% | 398.0 | 338.0 | 69\% | 81\% |
| 44 | 247 | 589 | 0.4194 | 66.62\% | 56.62\% | 392.4 | 333.5 | 63\% | 74\% |
| 45 | 235 | 542 | 0.4336 | 66.31\% | 56.31\% | 359.4 | 305.2 | 65\% | 77\% |
| 46 | 185 | 504 | 0.3671 | 65.91\% | 55.91\% | 332.2 | 281.8 | 56\% | 66\% |
| 47 | 181 | 447 | 0.4049 | 65.48\% | 55.48\% | 292.7 | 248.0 | 62\% | 73\% |
| 48 | 149 | 364 | 0.4093 | 65.69\% | 55.69\% | 239.1 | 202.7 | 62\% | 74\% |
| 49 | 155 | 371 | 0.4178 | 65.58\% | 55.58\% | 243.3 | 206.2 | 64\% | 75\% |
| 50 | 132 | 314 | 0.4204 | 64.90\% | 54.90\% | 203.8 | 172.4 | 65\% | 77\% |
| 51 | 118 | 276 | 0.4275 | 65.11\% | 55.11\% | 179.7 | 152.1 | 66\% | 78\% |
| 52 | 94 | 219 | 0.4292 | 65.30\% | 55.30\% | 143.0 | 121.1 | 66\% | 78\% |
| 53 | 74 | 163 | 0.4540 | 64.54\% | 54.54\% | 105.2 | 88.9 | 70\% | 83\% |
| 54 | 37 | 124 | 0.2984 | 65.32\% | 55.32\% | 81.0 | 68.6 | 46\% | 54\% |
| 55 | 31 | 85 | 0.3647 | 64.59\% | 54.59\% | 54.9 | 46.4 | 56\% | 67\% |
| 56 | 28 | 92 | 0.3043 | 66.74\% | 56.74\% | 61.4 | 52.2 | 46\% | 54\% |
| 57 | 30 | 66 | 0.4545 | 66.36\% | 56.36\% | 43.8 | 37.2 | 68\% | 81\% |
| 58 | 20 | 49 | 0.4082 | 64.90\% | 54.90\% | 31.8 | 26.9 | 63\% | 74\% |
| 59 | 11 | 39 | 0.2821 | 66.67\% | 56.67\% | 26.0 | 22.1 | 42\% | 50\% |
| 60 | 8 | 19 | 0.4211 | 66.32\% | 56.32\% | 12.6 | 10.7 | 63\% | 75\% |
| 61 | 5 | 9 | 0.5556 | 64.44\% | 54.44\% | 5.8 | 4.9 | 86\% | 102\% |
| 62 | 4 | 8 | 0.5000 | 61.25\% | 51.25\% | 4.9 | 4.1 | 82\% | 98\% |
| 63 | 1 | 3 | 0.3333 | 100.00\% | 53.33\% | 3.0 | 1.6 | 33\% | 63\% |
| 64 | 0 | 2 | 0.0000 | 100.00\% | 60.00\% | 2.0 | 1.2 | 0\% | 0\% |
| 65 | 0 | 10 | 0.0000 | 100.00\% | 50.00\% | 10.0 | 5.0 | 0\% | 0\% |
| 66 | 1 | 6 | 0.1667 | 100.00\% | 50.00\% | 6.0 | 3.0 | 17\% | 33\% |
| 67 | 1 | 4 | 0.2500 | 100.00\% | 50.00\% | 4.0 | 2.0 | 25\% | 50\% |
| 68 | 0 | 2 | 0.0000 | 100.00\% | 50.00\% | 2.0 | 1.0 | 0\% | 0\% |
| 69 | 0 | , | 0.0000 | 100.00\% | 50.00\% | 1.0 | 0.5 | 0\% | 0\% |
| 70 | 1 | 1 | 1.0000 | 100.00\% | 100.00\% | 1.0 | 1.0 | 100\% | 100\% |
| Subtotal | 2,544 | 6,107 |  |  |  | 4,037.2 | 3,415.7 | 63\% | 74\% |
| Other | 30 | 69 | 0.4348 | 100.00\% | 100.00\% | 69.0 | 69.0 | 43\% | 43\% |
| Total | 2,574 | 6,176 |  |  |  | 4,106.2 | 3,484.7 | 63\% | 74\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 4B |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ \text { (3) } \times(6) \\ \hline \end{gathered}$ | Expected $(2) /(7)$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 31 | 138 | 0.2246 | 70.00\% | 60.00\% | 96.6 | 82.8 | 32\% | 37\% |
| 41 | 73 | 284 | 0.2570 | 70.00\% | 60.00\% | 198.8 | 170.4 | 37\% | 43\% |
| 42 | 90 | 362 | 0.2486 | 70.00\% | 60.00\% | 253.4 | 217.2 | 36\% | 41\% |
| 43 | 97 | 380 | 0.2553 | 70.00\% | 60.00\% | 266.0 | 228.0 | 36\% | 43\% |
| 44 | 95 | 390 | 0.2436 | 70.00\% | 60.00\% | 273.0 | 234.0 | 35\% | 41\% |
| 45 | 98 | 342 | 0.2865 | 70.00\% | 60.00\% | 239.4 | 205.2 | 41\% | 48\% |
| 46 | 70 | 298 | 0.2349 | 70.00\% | 60.00\% | 208.6 | 178.8 | 34\% | 39\% |
| 47 | 51 | 245 | 0.2082 | 70.00\% | 60.00\% | 171.5 | 147.0 | 30\% | 35\% |
| 48 | 49 | 207 | 0.2367 | 70.00\% | 60.00\% | 144.9 | 124.2 | 34\% | 39\% |
| 49 | 52 | 207 | 0.2512 | 70.00\% | 60.00\% | 144.9 | 124.2 | 36\% | 42\% |
| 50 | 35 | 154 | 0.2273 | 70.00\% | 60.00\% | 107.8 | 92.4 | 32\% | 38\% |
| 51 | 44 | 141 | 0.3121 | 70.00\% | 60.00\% | 98.7 | 84.6 | 45\% | 52\% |
| 52 | 31 | 116 | 0.2672 | 70.00\% | 60.00\% | 81.2 | 69.6 | 38\% | 45\% |
| 53 | 24 | 74 | 0.3243 | 70.00\% | 60.00\% | 51.8 | 44.4 | 46\% | 54\% |
| 54 | 13 | 66 | 0.1970 | 70.00\% | 60.00\% | 46.2 | 39.6 | 28\% | 33\% |
| 55 | 12 | 39 | 0.3077 | 70.00\% | 60.00\% | 27.3 | 23.4 | 44\% | 51\% |
| 56 | 17 | 62 | 0.2742 | 70.00\% | 60.00\% | 43.4 | 37.2 | 39\% | 46\% |
| 57 | 16 | 42 | 0.3810 | 70.00\% | 60.00\% | 29.4 | 25.2 | 54\% | 63\% |
| 58 | 5 | 24 | 0.2083 | 70.00\% | 60.00\% | 16.8 | 14.4 | 30\% | 35\% |
| 59 | 10 | 26 | 0.3846 | 70.00\% | 60.00\% | 18.2 | 15.6 | 55\% | 64\% |
| 60 | 6 | 12 | 0.5000 | 70.00\% | 60.00\% | 8.4 | 7.2 | 71\% | 83\% |
| 61 | 2 | 4 | 0.5000 | 70.00\% | 60.00\% | 2.8 | 2.4 | 71\% | 83\% |
| 62 | 0 | 1 | 0.0000 | 70.00\% | 60.00\% | 0.7 | 0.6 | 0\% | 0\% |
| 63 | 0 | 1 | 0.0000 | 100.00\% | 60.00\% | 1.0 | 0.6 | 0\% | 0\% |
| 64 | 0 | 2 | 0.0000 | 100.00\% | 60.00\% | 2.0 | 1.2 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 100.00\% | 60.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 100.00\% | 60.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 100.00\% | 60.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 100.00\% | 60.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 100.00\% | 60.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 921 | 3,617 |  |  |  | 2,532.8 | 2,170.2 | 36\% | 42\% |
| Other | 7 | 34 | 0.2059 | 100.00\% | 100.00\% | 34.0 | 34.0 | 21\% | 21\% |
| Total | 928 | 3,651 |  |  |  | 2,566.8 | 2,204.2 | 36\% | 42\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY MEN AND WOMEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 4C |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 57 | 72 | 0.7917 | 60.00\% | 50.00\% | 43.2 | 36.0 | 132\% | 158\% |
| 41 | 116 | 143 | 0.8112 | 60.00\% | 50.00\% | 85.8 | 71.5 | 135\% | 162\% |
| 42 | 156 | 199 | 0.7839 | 60.00\% | 50.00\% | 119.4 | 99.5 | 131\% | 157\% |
| 43 | 176 | 220 | 0.8000 | 60.00\% | 50.00\% | 132.0 | 110.0 | 133\% | 160\% |
| 44 | 152 | 199 | 0.7638 | 60.00\% | 50.00\% | 119.4 | 99.5 | 127\% | 153\% |
| 45 | 137 | 200 | 0.6850 | 60.00\% | 50.00\% | 120.0 | 100.0 | 114\% | 137\% |
| 46 | 115 | 206 | 0.5583 | 60.00\% | 50.00\% | 123.6 | 103.0 | 93\% | 112\% |
| 47 | 130 | 202 | 0.6436 | 60.00\% | 50.00\% | 121.2 | 101.0 | 107\% | 129\% |
| 48 | 100 | 157 | 0.6369 | 60.00\% | 50.00\% | 94.2 | 78.5 | 106\% | 127\% |
| 49 | 103 | 164 | 0.6280 | 60.00\% | 50.00\% | 98.4 | 82.0 | 105\% | 126\% |
| 50 | 97 | 160 | 0.6063 | 60.00\% | 50.00\% | 96.0 | 80.0 | 101\% | 121\% |
| 51 | 74 | 135 | 0.5481 | 60.00\% | 50.00\% | 81.0 | 67.5 | 91\% | 110\% |
| 52 | 63 | 103 | 0.6117 | 60.00\% | 50.00\% | 61.8 | 51.5 | 102\% | 122\% |
| 53 | 50 | 89 | 0.5618 | 60.00\% | 50.00\% | 53.4 | 44.5 | 94\% | 112\% |
| 54 | 24 | 58 | 0.4138 | 60.00\% | 50.00\% | 34.8 | 29.0 | 69\% | 83\% |
| 55 | 19 | 46 | 0.4130 | 60.00\% | 50.00\% | 27.6 | 23.0 | 69\% | 83\% |
| 56 | 11 | 30 | 0.3667 | 60.00\% | 50.00\% | 18.0 | 15.0 | 61\% | 73\% |
| 57 | 14 | 24 | 0.5833 | 60.00\% | 50.00\% | 14.4 | 12.0 | 97\% | 117\% |
| 58 | 15 | 25 | 0.6000 | 60.00\% | 50.00\% | 15.0 | 12.5 | 100\% | 120\% |
| 59 | 1 | 13 | 0.0769 | 60.00\% | 50.00\% | 7.8 | 6.5 | 13\% | 15\% |
| 60 | 2 | 7 | 0.2857 | 60.00\% | 50.00\% | 4.2 | 3.5 | 48\% | 57\% |
| 61 | 3 | 5 | 0.6000 | 60.00\% | 50.00\% | 3.0 | 2.5 | 100\% | 120\% |
| 62 | 4 | 7 | 0.5714 | 60.00\% | 50.00\% | 4.2 | 3.5 | 95\% | 114\% |
| 63 | 1 | 2 | 0.5000 | 100.00\% | 50.00\% | 2.0 | 1.0 | 50\% | 100\% |
| 64 | 0 | 0 | N/A | 100.00\% | 50.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 0 | 10 | 0.0000 | 100.00\% | 50.00\% | 10.0 | 5.0 | 0\% | 0\% |
| 66 | 1 | 6 | 0.1667 | 100.00\% | 50.00\% | 6.0 | 3.0 | 17\% | 33\% |
| 67 | 1 | 4 | 0.2500 | 100.00\% | 50.00\% | 4.0 | 2.0 | 25\% | 50\% |
| 68 | 0 | 2 | 0.0000 | 100.00\% | 50.00\% | 2.0 | 1.0 | 0\% | 0\% |
| 69 | 0 | 1 | 0.0000 | 100.00\% | 50.00\% | 1.0 | 0.5 | 0\% | 0\% |
| 70 | 1 | 1 | 1.0000 | 100.00\% | 100.00\% | 1.0 | 1.0 | 100\% | 100\% |
| Subtotal | 1,623 | 2,490 |  |  |  | 1,504.4 | 1,245.5 | 108\% | 130\% |
| Other | 23 | 35 | 0.6571 | 100.00\% | 100.00\% | 35.0 | 35.0 | 66\% | 66\% |
| Total | 1,646 | 2,525 |  |  |  | 1,539.4 | 1,280.5 | 107\% | 129\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY TOTAL - MEN AND WOMEN

| Age | TABLE 5A |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 1 | 9 | 0.1111 | 20.00\% | 18.89\% | 1.8 | 1.7 | 56\% | 59\% |
| 41 | 0 | 35 | 0.0000 | 20.00\% | 18.43\% | 7.0 | 6.5 | 0\% | 0\% |
| 42 | 8 | 82 | 0.0976 | 20.00\% | 19.21\% | 16.4 | 15.8 | 49\% | 51\% |
| 43 | 15 | 124 | 0.1210 | 20.00\% | 18.95\% | 24.8 | 23.5 | 60\% | 64\% |
| 44 | 26 | 145 | 0.1793 | 20.00\% | 19.03\% | 29.0 | 27.6 | 90\% | 94\% |
| 45 | 19 | 139 | 0.1367 | 20.00\% | 18.67\% | 27.8 | 26.0 | 68\% | 73\% |
| 46 | 23 | 142 | 0.1620 | 20.00\% | 18.56\% | 28.4 | 26.4 | 81\% | 87\% |
| 47 | 27 | 149 | 0.1812 | 20.00\% | 18.12\% | 29.8 | 27.0 | 91\% | 100\% |
| 48 | 20 | 131 | 0.1527 | 20.00\% | 18.13\% | 26.2 | 23.8 | 76\% | 84\% |
| 49 | 26 | 100 | 0.2600 | 20.00\% | 18.35\% | 20.0 | 18.4 | 130\% | 142\% |
| 50 | 12 | 102 | 0.1176 | 20.00\% | 18.19\% | 20.4 | 18.6 | 59\% | 65\% |
| 51 | 20 | 83 | 0.2410 | 20.00\% | 18.07\% | 16.6 | 15.0 | 120\% | 133\% |
| 52 | 16 | 84 | 0.1905 | 20.00\% | 17.86\% | 16.8 | 15.0 | 95\% | 107\% |
| 53 | 15 | 62 | 0.2419 | 20.00\% | 18.06\% | 12.4 | 11.2 | 121\% | 134\% |
| 54 | 9 | 47 | 0.1915 | 20.00\% | 17.87\% | 9.4 | 8.4 | 96\% | 107\% |
| 55 | 5 | 51 | 0.0980 | 20.00\% | 17.65\% | 10.2 | 9.0 | 49\% | 56\% |
| 56 | 6 | 35 | 0.1714 | 20.00\% | 17.14\% | 7.0 | 6.0 | 86\% | 100\% |
| 57 | 6 | 38 | 0.1579 | 20.00\% | 18.29\% | 7.6 | 7.0 | 79\% | 86\% |
| 58 | 4 | 19 | 0.2105 | 20.00\% | 17.63\% | 3.8 | 3.4 | 105\% | 119\% |
| 59 | 5 | 15 | 0.3333 | 20.00\% | 18.33\% | 3.0 | 2.8 | 167\% | 182\% |
| 60 | 5 | 20 | 0.2500 | 20.00\% | 18.25\% | 4.0 | 3.7 | 125\% | 137\% |
| 61 | 2 | 9 | 0.2222 | 20.00\% | 18.89\% | 1.8 | 1.7 | 111\% | 118\% |
| 62 | 0 | 2 | 0.0000 | 20.00\% | 17.50\% | 0.4 | 0.4 | 0\% | 0\% |
| 63 | 1 | 2 | 0.5000 | 100.00\% | 17.50\% | 2.0 | 0.4 | 50\% | 286\% |
| 64 | 1 | 2 | 0.5000 | 100.00\% | 17.50\% | 2.0 | 0.4 | 50\% | 286\% |
| 65 | 0 | 2 | 0.0000 | 100.00\% | 20.00\% | 2.0 | 0.4 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 272 | 1,629 |  |  |  | 330.6 | 299.4 | 82\% | 91\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 272 | 1,629 |  |  |  | 330.6 | 299.4 | 82\% | 91\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 5B |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2)/(3) } \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 1 | 7 | 0.1429 | 20.00\% | 20.00\% | 1.4 | 1.4 | 71\% | 71\% |
| 41 | 0 | 24 | 0.0000 | 20.00\% | 20.00\% | 4.8 | 4.8 | 0\% | 0\% |
| 42 | 7 | 69 | 0.1014 | 20.00\% | 20.00\% | 13.8 | 13.8 | 51\% | 51\% |
| 43 | 13 | 98 | 0.1327 | 20.00\% | 20.00\% | 19.6 | 19.6 | 66\% | 66\% |
| 44 | 24 | 117 | 0.2051 | 20.00\% | 20.00\% | 23.4 | 23.4 | 103\% | 103\% |
| 45 | 16 | 102 | 0.1569 | 20.00\% | 20.00\% | 20.4 | 20.4 | 78\% | 78\% |
| 46 | 21 | 101 | 0.2079 | 20.00\% | 20.00\% | 20.2 | 20.2 | 104\% | 104\% |
| 47 | 21 | 93 | 0.2258 | 20.00\% | 20.00\% | 18.6 | 18.6 | 113\% | 113\% |
| 48 | 16 | 82 | 0.1951 | 20.00\% | 20.00\% | 16.4 | 16.4 | 98\% | 98\% |
| 49 | 17 | 67 | 0.2537 | 20.00\% | 20.00\% | 13.4 | 13.4 | 127\% | 127\% |
| 50 | 7 | 65 | 0.1077 | 20.00\% | 20.00\% | 13.0 | 13.0 | 54\% | 54\% |
| 51 | 14 | 51 | 0.2745 | 20.00\% | 20.00\% | 10.2 | 10.2 | 137\% | 137\% |
| 52 | 8 | 48 | 0.1667 | 20.00\% | 20.00\% | 9.6 | 9.6 | 83\% | 83\% |
| 53 | 13 | 38 | 0.3421 | 20.00\% | 20.00\% | 7.6 | 7.6 | 171\% | 171\% |
| 54 | 6 | 27 | 0.2222 | 20.00\% | 20.00\% | 5.4 | 5.4 | 111\% | 111\% |
| 55 | 4 | 27 | 0.1481 | 20.00\% | 20.00\% | 5.4 | 5.4 | 74\% | 74\% |
| 56 | 3 | 15 | 0.2000 | 20.00\% | 20.00\% | 3.0 | 3.0 | 100\% | 100\% |
| 57 | 3 | 25 | 0.1200 | 20.00\% | 20.00\% | 5.0 | 5.0 | 60\% | 60\% |
| 58 | 2 | 10 | 0.2000 | 20.00\% | 20.00\% | 2.0 | 2.0 | 100\% | 100\% |
| 59 | 4 | 10 | 0.4000 | 20.00\% | 20.00\% | 2.0 | 2.0 | 200\% | 200\% |
| 60 | 3 | 13 | 0.2308 | 20.00\% | 20.00\% | 2.6 | 2.6 | 115\% | 115\% |
| 61 | 2 | 7 | 0.2857 | 20.00\% | 20.00\% | 1.4 | 1.4 | 143\% | 143\% |
| 62 | 0 | 1 | 0.0000 | 20.00\% | 20.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 63 | 0 | 1 | 0.0000 | 100.00\% | 20.00\% | 1.0 | 0.2 | 0\% | 0\% |
| 64 | 0 | 1 | 0.0000 | 100.00\% | 20.00\% | 1.0 | 0.2 | 0\% | 0\% |
| 65 | 0 | 2 | 0.0000 | 100.00\% | 20.00\% | 2.0 | 0.4 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 100.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 100.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 100.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 100.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 205 | 1,101 |  |  |  | 223.4 | 220.2 | 92\% | 93\% |
| Other | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 205 | 1,101 |  |  |  | 223.4 | 220.2 | 92\% | 93\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY

MEN AND WOMEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 5C |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 2 | 0.0000 | 20.00\% | 15.00\% | 0.4 | 0.3 | 0\% | 0\% |
| 41 | 0 | 11 | 0.0000 | 20.00\% | 15.00\% | 2.2 | 1.7 | 0\% | 0\% |
| 42 | 1 | 13 | 0.0769 | 20.00\% | 15.00\% | 2.6 | 2.0 | 38\% | 51\% |
| 43 | 2 | 26 | 0.0769 | 20.00\% | 15.00\% | 5.2 | 3.9 | 38\% | 51\% |
| 44 | 2 | 28 | 0.0714 | 20.00\% | 15.00\% | 5.6 | 4.2 | 36\% | 48\% |
| 45 | 3 | 37 | 0.0811 | 20.00\% | 15.00\% | 7.4 | 5.6 | 41\% | 54\% |
| 46 | 2 | 41 | 0.0488 | 20.00\% | 15.00\% | 8.2 | 6.2 | 24\% | 33\% |
| 47 | 6 | 56 | 0.1071 | 20.00\% | 15.00\% | 11.2 | 8.4 | 54\% | 71\% |
| 48 | 4 | 49 | 0.0816 | 20.00\% | 15.00\% | 9.8 | 7.4 | 41\% | 54\% |
| 49 | 9 | 33 | 0.2727 | 20.00\% | 15.00\% | 6.6 | 5.0 | 136\% | 182\% |
| 50 | 5 | 37 | 0.1351 | 20.00\% | 15.00\% | 7.4 | 5.6 | 68\% | 90\% |
| 51 | 6 | 32 | 0.1875 | 20.00\% | 15.00\% | 6.4 | 4.8 | 94\% | 125\% |
| 52 | 8 | 36 | 0.2222 | 20.00\% | 15.00\% | 7.2 | 5.4 | 111\% | 148\% |
| 53 | 2 | 24 | 0.0833 | 20.00\% | 15.00\% | 4.8 | 3.6 | 42\% | 56\% |
| 54 | 3 | 20 | 0.1500 | 20.00\% | 15.00\% | 4.0 | 3.0 | 75\% | 100\% |
| 55 | 1 | 24 | 0.0417 | 20.00\% | 15.00\% | 4.8 | 3.6 | 21\% | 28\% |
| 56 | 3 | 20 | 0.1500 | 20.00\% | 15.00\% | 4.0 | 3.0 | 75\% | 100\% |
| 57 | 3 | 13 | 0.2308 | 20.00\% | 15.00\% | 2.6 | 2.0 | 115\% | 154\% |
| 58 | 2 | 9 | 0.2222 | 20.00\% | 15.00\% | 1.8 | 1.4 | 111\% | 148\% |
| 59 | 1 | 5 | 0.2000 | 20.00\% | 15.00\% | 1.0 | 0.8 | 100\% | 133\% |
| 60 | 2 | 7 | 0.2857 | 20.00\% | 15.00\% | 1.4 | 1.1 | 143\% | 190\% |
| 61 | 0 | 2 | 0.0000 | 20.00\% | 15.00\% | 0.4 | 0.3 | 0\% | 0\% |
| 62 | 0 | 1 | 0.0000 | 20.00\% | 15.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 63 | 1 | 1 | 1.0000 | 100.00\% | 15.00\% | 1.0 | 0.2 | 100\% | 667\% |
| 64 | 1 | 1 | 1.0000 | 100.00\% | 15.00\% | 1.0 | 0.2 | 100\% | 667\% |
| 65 | 0 | 0 | N/A | 100.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 100.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 100.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 100.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 100.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 67 | 528 |  |  |  | 107.2 | 79.2 | 63\% | 85\% |
| Other | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 67 | 528 |  |  |  | 107.2 | 79.2 | 63\% | 85\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY TOTAL - MEN AND WOMEN

|  | TABLE 5A |  |  | $\begin{array}{ll} & \text { 10-YEAR PERIOD ENDING 6/30/2013 } \\ \text { Assumed Probability } \\ \text { Expected Retirements }\end{array}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } /(\mathbf{3}) \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ (3) \times(6) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | $\begin{aligned} & \text { Proposed } \\ & (2) /(8) \\ & \hline \end{aligned}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 11 | 30 | 0.3667 | 20.00\% | 20.00\% | 6.0 | 6.0 | 183\% | 183\% |
| 41 | 42 | 128 | 0.3281 | 20.00\% | 19.10\% | 25.6 | 24.5 | 164\% | 172\% |
| 42 | 72 | 231 | 0.3117 | 20.00\% | 19.26\% | 46.2 | 44.5 | 156\% | 162\% |
| 43 | 91 | 304 | 0.2993 | 20.00\% | 19.29\% | 60.8 | 58.7 | 150\% | 155\% |
| 44 | 90 | 309 | 0.2913 | 20.00\% | 19.29\% | 61.8 | 59.6 | 146\% | 151\% |
| 45 | 99 | 319 | 0.3103 | 20.00\% | 19.11\% | 63.8 | 61.0 | 155\% | 162\% |
| 46 | 92 | 305 | 0.3016 | 20.00\% | 18.93\% | 61.0 | 57.8 | 151\% | 159\% |
| 47 | 80 | 301 | 0.2658 | 20.00\% | 18.64\% | 60.2 | 56.1 | 133\% | 143\% |
| 48 | 76 | 271 | 0.2804 | 20.00\% | 18.67\% | 54.2 | 50.6 | 140\% | 150\% |
| 49 | 78 | 219 | 0.3562 | 20.00\% | 18.63\% | 43.8 | 40.8 | 178\% | 191\% |
| 50 | 61 | 214 | 0.2850 | 20.00\% | 18.57\% | 42.8 | 39.8 | 143\% | 153\% |
| 51 | 55 | 172 | 0.3198 | 20.00\% | 18.40\% | 34.4 | 31.7 | 160\% | 174\% |
| 52 | 39 | 145 | 0.2690 | 20.00\% | 18.14\% | 29.0 | 26.3 | 134\% | 148\% |
| 53 | 41 | 121 | 0.3388 | 20.00\% | 18.72\% | 24.2 | 22.7 | 169\% | 181\% |
| 54 | 24 | 79 | 0.3038 | 20.00\% | 17.78\% | 15.8 | 14.1 | 152\% | 171\% |
| 55 | 13 | 80 | 0.1625 | 20.00\% | 18.31\% | 16.0 | 14.7 | 81\% | 89\% |
| 56 | 7 | 47 | 0.1489 | 20.00\% | 17.23\% | 9.4 | 8.1 | 74\% | 86\% |
| 57 | 13 | 56 | 0.2321 | 20.00\% | 18.57\% | 11.2 | 10.4 | 116\% | 125\% |
| 58 | 8 | 31 | 0.2581 | 20.00\% | 18.55\% | 6.2 | 5.8 | 129\% | 139\% |
| 59 | 7 | 24 | 0.2917 | 20.00\% | 18.75\% | 4.8 | 4.5 | 146\% | 156\% |
| 60 | 5 | 25 | 0.2000 | 20.00\% | 18.60\% | 5.0 | 4.7 | 100\% | 108\% |
| 61 | 2 | 11 | 0.1818 | 20.00\% | 18.64\% | 2.2 | 2.1 | 91\% | 98\% |
| 62 | 0 | 2 | 0.0000 | 20.00\% | 17.50\% | 0.4 | 0.4 | 0\% | 0\% |
| 63 | 1 | 2 | 0.5000 | 100.00\% | 17.50\% | 2.0 | 0.4 | 50\% | 286\% |
| 64 | 1 | 2 | 0.5000 | 100.00\% | 17.50\% | 2.0 | 0.4 | 50\% | 286\% |
| 65 | 0 | 2 | 0.0000 | 100.00\% | 20.00\% | 2.0 | 0.4 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 1,008 | 3,430 |  |  |  | 690.8 | 645.4 | 146\% | 156\% |
| Other | 2 | 3 | 0.6667 | 100.00\% | 100.00\% | 3.0 | 3.0 | 67\% | 67\% |
| Total | 1,010 | 3,433 |  |  |  | 693.8 | 648.4 | 146\% | 156\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 5B |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) / (3) } \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $\text { (2) } /(7)$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 7 | 24 | 0.2917 | 20.00\% | 20.00\% | 4.8 | 4.8 | 146\% | 146\% |
| 41 | 33 | 105 | 0.3143 | 20.00\% | 20.00\% | 21.0 | 21.0 | 157\% | 157\% |
| 42 | 60 | 197 | 0.3046 | 20.00\% | 20.00\% | 39.4 | 39.4 | 152\% | 152\% |
| 43 | 78 | 261 | 0.2989 | 20.00\% | 20.00\% | 52.2 | 52.2 | 149\% | 149\% |
| 44 | 81 | 265 | 0.3057 | 20.00\% | 20.00\% | 53.0 | 53.0 | 153\% | 153\% |
| 45 | 86 | 262 | 0.3282 | 20.00\% | 20.00\% | 52.4 | 52.4 | 164\% | 164\% |
| 46 | 78 | 240 | 0.3250 | 20.00\% | 20.00\% | 48.0 | 48.0 | 163\% | 163\% |
| 47 | 65 | 219 | 0.2968 | 20.00\% | 20.00\% | 43.8 | 43.8 | 148\% | 148\% |
| 48 | 60 | 199 | 0.3015 | 20.00\% | 20.00\% | 39.8 | 39.8 | 151\% | 151\% |
| 49 | 53 | 159 | 0.3333 | 20.00\% | 20.00\% | 31.8 | 31.8 | 167\% | 167\% |
| 50 | 44 | 153 | 0.2876 | 20.00\% | 20.00\% | 30.6 | 30.6 | 144\% | 144\% |
| 51 | 40 | 117 | 0.3419 | 20.00\% | 20.00\% | 23.4 | 23.4 | 171\% | 171\% |
| 52 | 27 | 91 | 0.2967 | 20.00\% | 20.00\% | 18.2 | 18.2 | 148\% | 148\% |
| 53 | 37 | 90 | 0.4111 | 20.00\% | 20.00\% | 18.0 | 18.0 | 206\% | 206\% |
| 54 | 15 | 44 | 0.3409 | 20.00\% | 20.00\% | 8.8 | 8.8 | 170\% | 170\% |
| 55 | 11 | 53 | 0.2075 | 20.00\% | 20.00\% | 10.6 | 10.6 | 104\% | 104\% |
| 56 | 3 | 21 | 0.1429 | 20.00\% | 20.00\% | 4.2 | 4.2 | 71\% | 71\% |
| 57 | 9 | 40 | 0.2250 | 20.00\% | 20.00\% | 8.0 | 8.0 | 113\% | 113\% |
| 58 | 6 | 22 | 0.2727 | 20.00\% | 20.00\% | 4.4 | 4.4 | 136\% | 136\% |
| 59 | 5 | 18 | 0.2778 | 20.00\% | 20.00\% | 3.6 | 3.6 | 139\% | 139\% |
| 60 | 3 | 18 | 0.1667 | 20.00\% | 20.00\% | 3.6 | 3.6 | 83\% | 83\% |
| 61 | 2 | 8 | 0.2500 | 20.00\% | 20.00\% | 1.6 | 1.6 | 125\% | 125\% |
| 62 | 0 | 1 | 0.0000 | 20.00\% | 20.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 63 | 0 | 1 | 0.0000 | 100.00\% | 20.00\% | 1.0 | 0.2 | 0\% | 0\% |
| 64 | 0 | 1 | 0.0000 | 100.00\% | 20.00\% | 1.0 | 0.2 | 0\% | 0\% |
| 65 | 0 | 2 | 0.0000 | 100.00\% | 20.00\% | 2.0 | 0.4 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 100.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 100.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 100.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 100.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 803 | 2,611 |  |  |  | 525.4 | 522.2 | 153\% | 154\% |
| Other | 1 | 1 | 1.0000 | 100.00\% | 100.00\% | 1.0 | 1.0 | 100\% | 100\% |
| Total | 804 | 2,612 |  |  |  | 526.4 | 523.2 | 153\% | 154\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY

MEN AND WOMEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 5C |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements <br> Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 4 | 6 | 0.6667 | 20.00\% | 20.00\% | 1.2 | 1.2 | 333\% | 333\% |
| 41 | 9 | 23 | 0.3913 | 20.00\% | 15.00\% | 4.6 | 3.5 | 196\% | 261\% |
| 42 | 12 | 34 | 0.3529 | 20.00\% | 15.00\% | 6.8 | 5.1 | 176\% | 235\% |
| 43 | 13 | 43 | 0.3023 | 20.00\% | 15.00\% | 8.6 | 6.5 | 151\% | 202\% |
| 44 | 9 | 44 | 0.2045 | 20.00\% | 15.00\% | 8.8 | 6.6 | 102\% | 136\% |
| 45 | 13 | 57 | 0.2281 | 20.00\% | 15.00\% | 11.4 | 8.6 | 114\% | 152\% |
| 46 | 14 | 65 | 0.2154 | 20.00\% | 15.00\% | 13.0 | 9.8 | 108\% | 144\% |
| 47 | 15 | 82 | 0.1829 | 20.00\% | 15.00\% | 16.4 | 12.3 | 91\% | 122\% |
| 48 | 16 | 72 | 0.2222 | 20.00\% | 15.00\% | 14.4 | 10.8 | 111\% | 148\% |
| 49 | 25 | 60 | 0.4167 | 20.00\% | 15.00\% | 12.0 | 9.0 | 208\% | 278\% |
| 50 | 17 | 61 | 0.2787 | 20.00\% | 15.00\% | 12.2 | 9.2 | 139\% | 186\% |
| 51 | 15 | 55 | 0.2727 | 20.00\% | 15.00\% | 11.0 | 8.3 | 136\% | 182\% |
| 52 | 12 | 54 | 0.2222 | 20.00\% | 15.00\% | 10.8 | 8.1 | 111\% | 148\% |
| 53 | 4 | 31 | 0.1290 | 20.00\% | 15.00\% | 6.2 | 4.7 | 65\% | 86\% |
| 54 | 9 | 35 | 0.2571 | 20.00\% | 15.00\% | 7.0 | 5.3 | 129\% | 171\% |
| 55 | 2 | 27 | 0.0741 | 20.00\% | 15.00\% | 5.4 | 4.1 | 37\% | 49\% |
| 56 | 4 | 26 | 0.1538 | 20.00\% | 15.00\% | 5.2 | 3.9 | 77\% | 103\% |
| 57 | 4 | 16 | 0.2500 | 20.00\% | 15.00\% | 3.2 | 2.4 | 125\% | 167\% |
| 58 | 2 | 9 | 0.2222 | 20.00\% | 15.00\% | 1.8 | 1.4 | 111\% | 148\% |
| 59 | 2 | 6 | 0.3333 | 20.00\% | 15.00\% | 1.2 | 0.9 | 167\% | 222\% |
| 60 | 2 | 7 | 0.2857 | 20.00\% | 15.00\% | 1.4 | 1.1 | 143\% | 190\% |
| 61 | 0 | 3 | 0.0000 | 20.00\% | 15.00\% | 0.6 | 0.5 | 0\% | 0\% |
| 62 | 0 | 1 | 0.0000 | 20.00\% | 15.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 63 | 1 | 1 | 1.0000 | 100.00\% | 15.00\% | 1.0 | 0.2 | 100\% | 667\% |
| 64 | 1 | 1 | 1.0000 | 100.00\% | 15.00\% | 1.0 | 0.2 | 100\% | 667\% |
| 65 | 0 | 0 | N/A | 100.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 100.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 100.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 100.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 100.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 205 | 819 |  |  |  | 165.4 | 123.2 | 124\% | 166\% |
| Other | 1 | 2 | 0.5000 | 100.00\% | 100.00\% | 2.0 | 2.0 | 50\% | 50\% |
| Total | 206 | 821 |  |  |  | 167.4 | 125.2 | 123\% | 165\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY TOTAL - MEN AND WOMEN

|  | TABLE 6A |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed <br> (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 1 | 11 | 0.0909 | 20.00\% | 15.00\% | 2.2 | 1.7 | 45\% | 61\% |
| 42 | 7 | 65 | 0.1077 | 20.00\% | 15.00\% | 13.0 | 9.8 | 54\% | 72\% |
| 43 | 17 | 149 | 0.1141 | 20.00\% | 15.00\% | 29.8 | 22.4 | 57\% | 76\% |
| 44 | 31 | 244 | 0.1270 | 20.00\% | 15.00\% | 48.8 | 36.6 | 64\% | 85\% |
| 45 | 36 | 341 | 0.1056 | 20.00\% | 15.00\% | 68.2 | 51.2 | 53\% | 70\% |
| 46 | 51 | 429 | 0.1189 | 20.00\% | 15.00\% | 85.8 | 64.4 | 59\% | 79\% |
| 47 | 51 | 452 | 0.1128 | 20.00\% | 15.00\% | 90.4 | 67.8 | 56\% | 75\% |
| 48 | 44 | 447 | 0.0984 | 20.00\% | 15.00\% | 89.4 | 67.1 | 49\% | 66\% |
| 49 | 44 | 438 | 0.1005 | 20.00\% | 15.00\% | 87.6 | 65.7 | 50\% | 67\% |
| 50 | 49 | 378 | 0.1296 | 20.00\% | 15.00\% | 75.6 | 56.7 | 65\% | 86\% |
| 51 | 37 | 364 | 0.1016 | 20.00\% | 15.00\% | 72.8 | 54.6 | 51\% | 68\% |
| 52 | 44 | 330 | 0.1333 | 20.00\% | 15.00\% | 66.0 | 49.5 | 67\% | 89\% |
| 53 | 36 | 295 | 0.1220 | 20.00\% | 15.00\% | 59.0 | 44.3 | 61\% | 81\% |
| 54 | 32 | 237 | 0.1350 | 20.00\% | 15.00\% | 47.4 | 35.6 | 68\% | 90\% |
| 55 | 26 | 208 | 0.1250 | 20.00\% | 15.00\% | 41.6 | 31.2 | 63\% | 83\% |
| 56 | 19 | 192 | 0.0990 | 20.00\% | 15.00\% | 38.4 | 28.8 | 49\% | 66\% |
| 57 | 24 | 166 | 0.1446 | 20.00\% | 15.00\% | 33.2 | 24.9 | 72\% | 96\% |
| 58 | 18 | 138 | 0.1304 | 20.00\% | 15.00\% | 27.6 | 20.7 | 65\% | 87\% |
| 59 | 15 | 102 | 0.1471 | 20.00\% | 15.00\% | 20.4 | 15.3 | 74\% | 98\% |
| 60 | 12 | 70 | 0.1714 | 20.00\% | 15.00\% | 14.0 | 10.5 | 86\% | 114\% |
| 61 | 13 | 48 | 0.2708 | 20.00\% | 15.00\% | 9.6 | 7.2 | 135\% | 181\% |
| 62 | 11 | 36 | 0.3056 | 20.00\% | 15.00\% | 7.2 | 5.4 | 153\% | 204\% |
| 63 | 2 | 13 | 0.1538 | 100.00\% | 15.00\% | 13.0 | 2.0 | 15\% | 103\% |
| 64 | 1 | 10 | 0.1000 | 100.00\% | 15.00\% | 10.0 | 1.5 | 10\% | 67\% |
| 65 | 1 | 6 | 0.1667 | 100.00\% | 15.00\% | 6.0 | 0.9 | 17\% | 111\% |
| 66 | 1 | 5 | 0.2000 | 100.00\% | 15.00\% | 5.0 | 0.8 | 20\% | 133\% |
| 67 | 2 | 3 | 0.6667 | 100.00\% | 15.00\% | 3.0 | 0.5 | 67\% | 444\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 1 | 0.0000 | 100.00\% | 15.00\% | 1.0 | 0.2 | 0\% | 0\% |
| 70 | 1 | 1 | 1.0000 | 100.00\% | 100.00\% | 1.0 | 1.0 | 100\% | 100\% |
| Subtotal | 626 | 5,179 |  |  |  | 1,067.0 | 777.7 | 59\% | 80\% |
| Other | 0 | 4 | 0.0000 | 100.00\% | 100.00\% | 4.0 | 4.0 | 0\% | 0\% |
| Total | 626 | 5,183 |  |  |  | 1,071.0 | 781.7 | 58\% | 80\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

| Age | TABLE 6B |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Retirements | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 20.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 1 | 9 | 0.1111 | 20.00\% | 15.00\% | 1.8 | 1.4 | 56\% | 74\% |
| 42 | 6 | 49 | 0.1224 | 20.00\% | 15.00\% | 9.8 | 7.4 | 61\% | 82\% |
| 43 | 17 | 129 | 0.1318 | 20.00\% | 15.00\% | 25.8 | 19.4 | 66\% | 88\% |
| 44 | 29 | 216 | 0.1343 | 20.00\% | 15.00\% | 43.2 | 32.4 | 67\% | 90\% |
| 45 | 34 | 308 | 0.1104 | 20.00\% | 15.00\% | 61.6 | 46.2 | 55\% | 74\% |
| 46 | 49 | 380 | 0.1289 | 20.00\% | 15.00\% | 76.0 | 57.0 | 64\% | 86\% |
| 47 | 46 | 386 | 0.1192 | 20.00\% | 15.00\% | 77.2 | 57.9 | 60\% | 79\% |
| 48 | 39 | 364 | 0.1071 | 20.00\% | 15.00\% | 72.8 | 54.6 | 54\% | 71\% |
| 49 | 38 | 350 | 0.1086 | 20.00\% | 15.00\% | 70.0 | 52.5 | 54\% | 72\% |
| 50 | 43 | 308 | 0.1396 | 20.00\% | 15.00\% | 61.6 | 46.2 | 70\% | 93\% |
| 51 | 33 | 291 | 0.1134 | 20.00\% | 15.00\% | 58.2 | 43.7 | 57\% | 76\% |
| 52 | 36 | 259 | 0.1390 | 20.00\% | 15.00\% | 51.8 | 38.9 | 69\% | 93\% |
| 53 | 32 | 230 | 0.1391 | 20.00\% | 15.00\% | 46.0 | 34.5 | 70\% | 93\% |
| 54 | 28 | 175 | 0.1600 | 20.00\% | 15.00\% | 35.0 | 26.3 | 80\% | 107\% |
| 55 | 22 | 153 | 0.1438 | 20.00\% | 15.00\% | 30.6 | 23.0 | 72\% | 96\% |
| 56 | 18 | 139 | 0.1295 | 20.00\% | 15.00\% | 27.8 | 20.9 | 65\% | 86\% |
| 57 | 19 | 116 | 0.1638 | 20.00\% | 15.00\% | 23.2 | 17.4 | 82\% | 109\% |
| 58 | 11 | 105 | 0.1048 | 20.00\% | 15.00\% | 21.0 | 15.8 | 52\% | 70\% |
| 59 | 12 | 79 | 0.1519 | 20.00\% | 15.00\% | 15.8 | 11.9 | 76\% | 101\% |
| 60 | 9 | 54 | 0.1667 | 20.00\% | 15.00\% | 10.8 | 8.1 | 83\% | 111\% |
| 61 | 11 | 38 | 0.2895 | 20.00\% | 15.00\% | 7.6 | 5.7 | 145\% | 193\% |
| 62 | 9 | 27 | 0.3333 | 20.00\% | 15.00\% | 5.4 | 4.1 | 167\% | 222\% |
| 63 | 2 | 10 | 0.2000 | 100.00\% | 15.00\% | 10.0 | 1.5 | 20\% | 133\% |
| 64 | 1 | 6 | 0.1667 | 100.00\% | 15.00\% | 6.0 | 0.9 | 17\% | 111\% |
| 65 | 1 | 4 | 0.2500 | 100.00\% | 15.00\% | 4.0 | 0.6 | 25\% | 167\% |
| 66 | 0 | 2 | 0.0000 | 100.00\% | 15.00\% | 2.0 | 0.3 | 0\% | 0\% |
| 67 | 2 | 2 | 1.0000 | 100.00\% | 15.00\% | 2.0 | 0.3 | 100\% | 667\% |
| 68 | 0 | 0 | N/A | 100.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 100.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 548 | 4,189 |  |  |  | 857.0 | 628.4 | 64\% | 87\% |
| Other | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 548 | 4,189 |  |  |  | 857.0 | 628.4 | 64\% | 87\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - MANDATED RETIREMENT BENEFIT

| Age | TABLE 6C |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements <br> Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Retirements | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 20.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 2 | 0.0000 | 20.00\% | 15.00\% | 0.4 | 0.3 | 0\% | 0\% |
| 42 | 1 | 16 | 0.0625 | 20.00\% | 15.00\% | 3.2 | 2.4 | 31\% | 42\% |
| 43 | 0 | 20 | 0.0000 | 20.00\% | 15.00\% | 4.0 | 3.0 | 0\% | 0\% |
| 44 | 2 | 28 | 0.0714 | 20.00\% | 15.00\% | 5.6 | 4.2 | 36\% | 48\% |
| 45 | 2 | 33 | 0.0606 | 20.00\% | 15.00\% | 6.6 | 5.0 | 30\% | 40\% |
| 46 | 2 | 49 | 0.0408 | 20.00\% | 15.00\% | 9.8 | 7.4 | 20\% | 27\% |
| 47 | 5 | 66 | 0.0758 | 20.00\% | 15.00\% | 13.2 | 9.9 | 38\% | 51\% |
| 48 | 5 | 83 | 0.0602 | 20.00\% | 15.00\% | 16.6 | 12.5 | 30\% | 40\% |
| 49 | 6 | 88 | 0.0682 | 20.00\% | 15.00\% | 17.6 | 13.2 | 34\% | 45\% |
| 50 | 6 | 70 | 0.0857 | 20.00\% | 15.00\% | 14.0 | 10.5 | 43\% | 57\% |
| 51 | 4 | 73 | 0.0548 | 20.00\% | 15.00\% | 14.6 | 11.0 | 27\% | 37\% |
| 52 | 8 | 71 | 0.1127 | 20.00\% | 15.00\% | 14.2 | 10.7 | 56\% | 75\% |
| 53 | 4 | 65 | 0.0615 | 20.00\% | 15.00\% | 13.0 | 9.8 | 31\% | 41\% |
| 54 | 4 | 62 | 0.0645 | 20.00\% | 15.00\% | 12.4 | 9.3 | 32\% | 43\% |
| 55 | 4 | 55 | 0.0727 | 20.00\% | 15.00\% | 11.0 | 8.3 | 36\% | 48\% |
| 56 | 1 | 53 | 0.0189 | 20.00\% | 15.00\% | 10.6 | 8.0 | 9\% | 13\% |
| 57 | 5 | 50 | 0.1000 | 20.00\% | 15.00\% | 10.0 | 7.5 | 50\% | 67\% |
| 58 | 7 | 33 | 0.2121 | 20.00\% | 15.00\% | 6.6 | 5.0 | 106\% | 141\% |
| 59 | 3 | 23 | 0.1304 | 20.00\% | 15.00\% | 4.6 | 3.5 | 65\% | 87\% |
| 60 | 3 | 16 | 0.1875 | 20.00\% | 15.00\% | 3.2 | 2.4 | 94\% | 125\% |
| 61 | 2 | 10 | 0.2000 | 20.00\% | 15.00\% | 2.0 | 1.5 | 100\% | 133\% |
| 62 | 2 | 9 | 0.2222 | 20.00\% | 15.00\% | 1.8 | 1.4 | 111\% | 148\% |
| 63 | 0 | 3 | 0.0000 | 100.00\% | 15.00\% | 3.0 | 0.5 | 0\% | 0\% |
| 64 | 0 | 4 | 0.0000 | 100.00\% | 15.00\% | 4.0 | 0.6 | 0\% | 0\% |
| 65 | 0 | 2 | 0.0000 | 100.00\% | 15.00\% | 2.0 | 0.3 | 0\% | 0\% |
| 66 | 1 | 3 | 0.3333 | 100.00\% | 15.00\% | 3.0 | 0.5 | 33\% | 222\% |
| 67 | 0 | 1 | 0.0000 | 100.00\% | 15.00\% | 1.0 | 0.2 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 100.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 1 | 0.0000 | 100.00\% | 15.00\% | 1.0 | 0.2 | 0\% | 0\% |
| 70 | 1 | 1 | 1.0000 | 100.00\% | 100.00\% | 1.0 | 1.0 | 100\% | 100\% |
| Subtotal | 78 | 990 |  |  |  | 210.0 | 149.4 | 37\% | 52\% |
| Other | 0 | 4 | 0.0000 | 100.00\% | 100.00\% | 4.0 | 4.0 | 0\% | 0\% |
| Total | 78 | 994 |  |  |  | 214.0 | 153.4 | 36\% | 51\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY TOTAL - MEN AND WOMEN

|  | TABLE 6A |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 1 | 0.0000 | 20.00\% | 15.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 41 | 2 | 22 | 0.0909 | 20.00\% | 15.00\% | 4.4 | 3.3 | 45\% | 61\% |
| 42 | 18 | 108 | 0.1667 | 20.00\% | 15.00\% | 21.6 | 16.2 | 83\% | 111\% |
| 43 | 35 | 229 | 0.1528 | 20.00\% | 15.00\% | 45.8 | 34.4 | 76\% | 102\% |
| 44 | 55 | 378 | 0.1455 | 20.00\% | 15.00\% | 75.6 | 56.7 | 73\% | 97\% |
| 45 | 60 | 509 | 0.1179 | 20.00\% | 15.00\% | 101.8 | 76.4 | 59\% | 79\% |
| 46 | 77 | 597 | 0.1290 | 20.00\% | 15.00\% | 119.4 | 89.6 | 64\% | 86\% |
| 47 | 80 | 616 | 0.1299 | 20.00\% | 15.00\% | 123.2 | 92.4 | 65\% | 87\% |
| 48 | 72 | 636 | 0.1132 | 20.00\% | 15.00\% | 127.2 | 95.4 | 57\% | 75\% |
| 49 | 79 | 634 | 0.1246 | 20.00\% | 15.00\% | 126.8 | 95.1 | 62\% | 83\% |
| 50 | 74 | 571 | 0.1296 | 20.00\% | 15.00\% | 114.2 | 85.7 | 65\% | 86\% |
| 51 | 68 | 559 | 0.1216 | 20.00\% | 15.00\% | 111.8 | 83.9 | 61\% | 81\% |
| 52 | 67 | 512 | 0.1309 | 20.00\% | 15.00\% | 102.4 | 76.8 | 65\% | 87\% |
| 53 | 56 | 446 | 0.1256 | 20.00\% | 15.00\% | 89.2 | 66.9 | 63\% | 84\% |
| 54 | 59 | 384 | 0.1536 | 20.00\% | 15.00\% | 76.8 | 57.6 | 77\% | 102\% |
| 55 | 37 | 307 | 0.1205 | 20.00\% | 15.00\% | 61.4 | 46.1 | 60\% | 80\% |
| 56 | 32 | 267 | 0.1199 | 20.00\% | 15.00\% | 53.4 | 40.1 | 60\% | 80\% |
| 57 | 35 | 215 | 0.1628 | 20.00\% | 15.00\% | 43.0 | 32.3 | 81\% | 109\% |
| 58 | 21 | 174 | 0.1207 | 20.00\% | 15.00\% | 34.8 | 26.1 | 60\% | 80\% |
| 59 | 18 | 129 | 0.1395 | 20.00\% | 15.00\% | 25.8 | 19.4 | 70\% | 93\% |
| 60 | 17 | 91 | 0.1868 | 20.00\% | 15.00\% | 18.2 | 13.7 | 93\% | 125\% |
| 61 | 15 | 61 | 0.2459 | 20.00\% | 15.00\% | 12.2 | 9.2 | 123\% | 164\% |
| 62 | 13 | 45 | 0.2889 | 20.00\% | 15.00\% | 9.0 | 6.8 | 144\% | 193\% |
| 63 | 3 | 20 | 0.1500 | 100.00\% | 15.00\% | 20.0 | 3.0 | 15\% | 100\% |
| 64 | 3 | 14 | 0.2143 | 100.00\% | 15.00\% | 14.0 | 2.1 | 21\% | 143\% |
| 65 | 1 | 8 | 0.1250 | 100.00\% | 15.00\% | 8.0 | 1.2 | 13\% | 83\% |
| 66 | 1 | 6 | 0.1667 | 100.00\% | 15.00\% | 6.0 | 0.9 | 17\% | 111\% |
| 67 | 2 | 4 | 0.5000 | 100.00\% | 15.00\% | 4.0 | 0.6 | 50\% | 333\% |
| 68 | 0 | 2 | 0.0000 | 100.00\% | 15.00\% | 2.0 | 0.3 | 0\% | 0\% |
| 69 | 0 | 2 | 0.0000 | 100.00\% | 15.00\% | 2.0 | 0.3 | 0\% | 0\% |
| 70 | 1 | 2 | 0.5000 | 100.00\% | 100.00\% | 2.0 | 2.0 | 50\% | 50\% |
| Subtotal | 1,001 | 7,549 |  |  |  | 1,556.2 | 1,134.1 | 64\% | 88\% |
| Other | 2 | 10 | 0.2000 | 100.00\% | 100.00\% | 10.0 | 10.0 | 20\% | 20\% |
| Total | 1,003 | 7,559 |  |  |  | 1,566.2 | 1,144.1 | 64\% | 88\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 6B |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed <br> (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 20.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 2 | 19 | 0.1053 | 20.00\% | 15.00\% | 3.8 | 2.9 | 53\% | 70\% |
| 42 | 16 | 90 | 0.1778 | 20.00\% | 15.00\% | 18.0 | 13.5 | 89\% | 119\% |
| 43 | 32 | 198 | 0.1616 | 20.00\% | 15.00\% | 39.6 | 29.7 | 81\% | 108\% |
| 44 | 49 | 333 | 0.1471 | 20.00\% | 15.00\% | 66.6 | 50.0 | 74\% | 98\% |
| 45 | 49 | 449 | 0.1091 | 20.00\% | 15.00\% | 89.8 | 67.4 | 55\% | 73\% |
| 46 | 66 | 520 | 0.1269 | 20.00\% | 15.00\% | 104.0 | 78.0 | 63\% | 85\% |
| 47 | 71 | 521 | 0.1363 | 20.00\% | 15.00\% | 104.2 | 78.2 | 68\% | 91\% |
| 48 | 61 | 515 | 0.1184 | 20.00\% | 15.00\% | 103.0 | 77.3 | 59\% | 79\% |
| 49 | 61 | 502 | 0.1215 | 20.00\% | 15.00\% | 100.4 | 75.3 | 61\% | 81\% |
| 50 | 59 | 458 | 0.1288 | 20.00\% | 15.00\% | 91.6 | 68.7 | 64\% | 86\% |
| 51 | 53 | 444 | 0.1194 | 20.00\% | 15.00\% | 88.8 | 66.6 | 60\% | 80\% |
| 52 | 53 | 397 | 0.1335 | 20.00\% | 15.00\% | 79.4 | 59.6 | 67\% | 89\% |
| 53 | 44 | 338 | 0.1302 | 20.00\% | 15.00\% | 67.6 | 50.7 | 65\% | 87\% |
| 54 | 49 | 285 | 0.1719 | 20.00\% | 15.00\% | 57.0 | 42.8 | 86\% | 115\% |
| 55 | 28 | 216 | 0.1296 | 20.00\% | 15.00\% | 43.2 | 32.4 | 65\% | 86\% |
| 56 | 25 | 190 | 0.1316 | 20.00\% | 15.00\% | 38.0 | 28.5 | 66\% | 88\% |
| 57 | 24 | 143 | 0.1678 | 20.00\% | 15.00\% | 28.6 | 21.5 | 84\% | 112\% |
| 58 | 12 | 123 | 0.0976 | 20.00\% | 15.00\% | 24.6 | 18.5 | 49\% | 65\% |
| 59 | 13 | 94 | 0.1383 | 20.00\% | 15.00\% | 18.8 | 14.1 | 69\% | 92\% |
| 60 | 12 | 65 | 0.1846 | 20.00\% | 15.00\% | 13.0 | 9.8 | 92\% | 123\% |
| 61 | 11 | 45 | 0.2444 | 20.00\% | 15.00\% | 9.0 | 6.8 | 122\% | 163\% |
| 62 | 10 | 31 | 0.3226 | 20.00\% | 15.00\% | 6.2 | 4.7 | 161\% | 215\% |
| 63 | 2 | 12 | 0.1667 | 100.00\% | 15.00\% | 12.0 | 1.8 | 17\% | 111\% |
| 64 | 3 | 8 | 0.3750 | 100.00\% | 15.00\% | 8.0 | 1.2 | 38\% | 250\% |
| 65 | 1 | 4 | 0.2500 | 100.00\% | 15.00\% | 4.0 | 0.6 | 25\% | 167\% |
| 66 | 0 | 2 | 0.0000 | 100.00\% | 15.00\% | 2.0 | 0.3 | 0\% | 0\% |
| 67 | 2 | 2 | 1.0000 | 100.00\% | 15.00\% | 2.0 | 0.3 | 100\% | 667\% |
| 68 | 0 | 0 | N/A | 100.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 100.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 808 | 6,004 |  |  |  | 1,223.2 | 900.6 | 66\% | 90\% |
| Other | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 808 | 6,004 |  |  |  | 1,223.2 | 900.6 | 66\% | 90\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 6C |  |  | Assumed | bability | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 1 | 0.0000 | 20.00\% | 15.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 41 | 0 | 3 | 0.0000 | 20.00\% | 15.00\% | 0.6 | 0.5 | 0\% | 0\% |
| 42 | 2 | 18 | 0.1111 | 20.00\% | 15.00\% | 3.6 | 2.7 | 56\% | 74\% |
| 43 | 3 | 31 | 0.0968 | 20.00\% | 15.00\% | 6.2 | 4.7 | 48\% | 65\% |
| 44 | 6 | 45 | 0.1333 | 20.00\% | 15.00\% | 9.0 | 6.8 | 67\% | 89\% |
| 45 | 11 | 60 | 0.1833 | 20.00\% | 15.00\% | 12.0 | 9.0 | 92\% | 122\% |
| 46 | 11 | 77 | 0.1429 | 20.00\% | 15.00\% | 15.4 | 11.6 | 71\% | 95\% |
| 47 | 9 | 95 | 0.0947 | 20.00\% | 15.00\% | 19.0 | 14.3 | 47\% | 63\% |
| 48 | 11 | 121 | 0.0909 | 20.00\% | 15.00\% | 24.2 | 18.2 | 45\% | 61\% |
| 49 | 18 | 132 | 0.1364 | 20.00\% | 15.00\% | 26.4 | 19.8 | 68\% | 91\% |
| 50 | 15 | 113 | 0.1327 | 20.00\% | 15.00\% | 22.6 | 17.0 | 66\% | 88\% |
| 51 | 15 | 115 | 0.1304 | 20.00\% | 15.00\% | 23.0 | 17.3 | 65\% | 87\% |
| 52 | 14 | 115 | 0.1217 | 20.00\% | 15.00\% | 23.0 | 17.3 | 61\% | 81\% |
| 53 | 12 | 108 | 0.1111 | 20.00\% | 15.00\% | 21.6 | 16.2 | 56\% | 74\% |
| 54 | 10 | 99 | 0.1010 | 20.00\% | 15.00\% | 19.8 | 14.9 | 51\% | 67\% |
| 55 | 9 | 91 | 0.0989 | 20.00\% | 15.00\% | 18.2 | 13.7 | 49\% | 66\% |
| 56 | 7 | 77 | 0.0909 | 20.00\% | 15.00\% | 15.4 | 11.6 | 45\% | 61\% |
| 57 | 11 | 72 | 0.1528 | 20.00\% | 15.00\% | 14.4 | 10.8 | 76\% | 102\% |
| 58 | 9 | 51 | 0.1765 | 20.00\% | 15.00\% | 10.2 | 7.7 | 88\% | 118\% |
| 59 | 5 | 35 | 0.1429 | 20.00\% | 15.00\% | 7.0 | 5.3 | 71\% | 95\% |
| 60 | 5 | 26 | 0.1923 | 20.00\% | 15.00\% | 5.2 | 3.9 | 96\% | 128\% |
| 61 | 4 | 16 | 0.2500 | 20.00\% | 15.00\% | 3.2 | 2.4 | 125\% | 167\% |
| 62 | 3 | 14 | 0.2143 | 20.00\% | 15.00\% | 2.8 | 2.1 | 107\% | 143\% |
| 63 | 1 | 8 | 0.1250 | 100.00\% | 15.00\% | 8.0 | 1.2 | 13\% | 83\% |
| 64 | 0 | 6 | 0.0000 | 100.00\% | 15.00\% | 6.0 | 0.9 | 0\% | 0\% |
| 65 | 0 | 4 | 0.0000 | 100.00\% | 15.00\% | 4.0 | 0.6 | 0\% | 0\% |
| 66 | 1 | 4 | 0.2500 | 100.00\% | 15.00\% | 4.0 | 0.6 | 25\% | 167\% |
| 67 | 0 | 2 | 0.0000 | 100.00\% | 15.00\% | 2.0 | 0.3 | 0\% | 0\% |
| 68 | 0 | 2 | 0.0000 | 100.00\% | 15.00\% | 2.0 | 0.3 | 0\% | 0\% |
| 69 | 0 | 2 | 0.0000 | 100.00\% | 15.00\% | 2.0 | 0.3 | 0\% | 0\% |
| 70 | 1 | 2 | 0.5000 | 100.00\% | 100.00\% | 2.0 | 2.0 | 50\% | 50\% |
| Subtotal | 193 | 1,545 |  |  |  | 333.0 | 233.5 | 58\% | 83\% |
| Other | 2 | 10 | 0.2000 | 100.00\% | 100.00\% | 10.0 | 10.0 | 20\% | 20\% |
| Total | 195 | 1,555 |  |  |  | 343.0 | 243.5 | 57\% | 80\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS RETIREMENT EXPERIENCE OF ACTIVE MEMBERS WITH UNREDUCED SERVICE TOTAL - MEN AND WOMEN

| Plan <br> Year | TABLE 6D |  |  | 10-YEAR PER | Retirement Rate |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending June 30, | Life Years Exposed | Actual <br> Retirements | Expected Retirements | Actual / Expected | $\begin{aligned} & \text { Actual } \\ & \text { (3) / (2) } \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 934 | 578 | 323.0 | 179\% | 61.88\% | 34.58\% |
| 2005 | 1,042 | 533 | 451.0 | 118\% | 51.15\% | 43.28\% |
| 2006 | 1,171 | 502 | 476.6 | 105\% | 42.87\% | 40.70\% |
| 2007 | 1,719 | 629 | 819.0 | 77\% | 36.59\% | 47.64\% |
| 2008 | 1,637 | 476 | 595.9 | 80\% | 29.08\% | 36.40\% |
| 2009 | 1,832 | 317 | 715.2 | 44\% | 17.30\% | 39.04\% |
| 2010 | 2,438 | 422 | 976.5 | 43\% | 17.31\% | 40.05\% |
| 2011 | 2,444 | 532 | 763.0 | 70\% | 21.77\% | 31.22\% |
| 2012 | 2,126 | 405 | 601.4 | 67\% | 19.05\% | 28.29\% |
| 2013 | 1,825 | 193 | 500.5 | 39\% | 10.58\% | 27.42\% |
| Total | 17,168 | 4,587 | 6,222.0 | 74\% | 26.72\% | 36.24\% |

[^9]NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS RETIREMENT EXPERIENCE OF ACTIVE MEMBERS WITH REDUCED SERVICE TOTAL - MEN AND WOMEN

| Age | TABLE 7A |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements <br> Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 3 | 0.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 12 | 0.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 0 | 1 | 0.0000 | 2.00\% | 3.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 56 | 0 | 1 | 0.0000 | 2.00\% | 3.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 57 | 0 | 0 | N/A | 2.00\% | 3.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 58 | 0 | 0 | N/A | 2.00\% | 3.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 59 | 0 | 0 | N/A | 3.00\% | 4.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 60 | 0 | 0 | N/A | 4.00\% | 5.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 61 | 0 | 0 | N/A | 5.00\% | 6.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 62 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 0 | 17 |  |  |  | 0.0 | 0.1 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 0 | 17 |  |  |  | 0.0 | 0.1 | 0\% | 0\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS RETIREMENT EXPERIENCE OF ACTIVE MEMBERS WITH REDUCED SERVICE TOTAL - MEN AND WOMEN

|  | TABLE 7A |  |  | Assumed | bability | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 22 | 0.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 1 | 65 | 0.0154 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 0 | 1 | 0.0000 | 2.00\% | 3.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 56 | 0 | 1 | 0.0000 | 2.00\% | 3.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 57 | 0 | 1 | 0.0000 | 2.00\% | 3.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 58 | 0 | 1 | 0.0000 | 2.00\% | 3.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 59 | 0 | 0 | N/A | 3.00\% | 4.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 60 | 0 | 0 | N/A | 4.00\% | 5.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 61 | 0 | 0 | N/A | 5.00\% | 6.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 62 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 1 | 91 |  |  |  | 0.1 | 0.1 | 1250\% | 833\% |
| Other | 0 | 4 | 0.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 1 | 95 |  |  |  | 0.1 | 0.1 | 1250\% | 833\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS RETIREMENT EXPERIENCE OF ACTIVE MEMBERS WITH REDUCED SERVICE TOTAL - MEN AND WOMEN

| Plan <br> Year | TABLE 7B |  |  | 10-YEAR PER | Retirement Rate |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending June 30, | Life Years Exposed | Actual Retirements | Expected Retirements | Actual / Expected | $\begin{gathered} \text { Actual } \\ (3) /(2) \end{gathered}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 13 | 0 | 0.6 | 0\% | 0.00\% | 4.31\% |
| 2005 | 13 | 0 | 0.6 | 0\% | 0.00\% | 4.31\% |
| 2006 | 10 | 0 | 0.5 | 0\% | 0.00\% | 4.70\% |
| 2007 | 13 | 0 | 0.6 | 0\% | 0.00\% | 4.85\% |
| 2008 | 16 | 1 | 0.8 | 132\% | 6.25\% | 4.75\% |
| 2009 | 13 | 0 | 0.6 | 0\% | 0.00\% | 4.54\% |
| 2010 | 12 | 0 | 0.6 | 0\% | 0.00\% | 4.75\% |
| 2011 | 3 | 0 | 0.2 | 0\% | 0.00\% | 5.00\% |
| 2012 | 1 | 0 | 0.0 | 0\% | 0.00\% | 2.00\% |
| 2013 | 1 | 0 | 0.0 | 0\% | 0.00\% | 2.00\% |
| Total | 95 | 1 | 4.3 | 23\% | 1.05\% | 4.56\% |

*The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 40 .

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN

|  | TABLE 8A |  |  | Assumed Probability $\begin{gathered}\text { 4-YEAR PERIOD ENDING 6/30/2013 } \\ \text { Expected Deaths }\end{gathered}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $x(5)$ | Proposed (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.050\% | 0.050\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 1 | 0.00000 | 0.050\% | 0.050\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 13 | 0.00000 | 0.050\% | 0.050\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 43 | 0.00000 | 0.050\% | 0.050\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 99 | 0.00000 | 0.050\% | 0.050\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 191 | 0.00000 | 0.040\% | 0.040\% | 0.1 | 0.1 | 0\% | 0\% |
| 26 | 1 | 261 | 0.00383 | 0.050\% | 0.050\% | 0.1 | 0.1 | 766\% | 766\% |
| 27 | 0 | 325 | 0.00000 | 0.050\% | 0.050\% | 0.2 | 0.2 | 0\% | 0\% |
| 28 | 0 | 380 | 0.00000 | 0.050\% | 0.050\% | 0.2 | 0.2 | 0\% | 0\% |
| 29 | 0 | 414 | 0.00000 | 0.050\% | 0.050\% | 0.2 | 0.2 | 0\% | 0\% |
| 30 | 1 | 420 | 0.00238 | 0.050\% | 0.050\% | 0.2 | 0.2 | 476\% | 476\% |
| 31 | 0 | 421 | 0.00000 | 0.050\% | 0.050\% | 0.2 | 0.2 | 0\% | 0\% |
| 32 | 0 | 404 | 0.00000 | 0.050\% | 0.050\% | 0.2 | 0.2 | 0\% | 0\% |
| 33 | 0 | 412 | 0.00000 | 0.050\% | 0.050\% | 0.2 | 0.2 | 0\% | 0\% |
| 34 | 1 | 437 | 0.00229 | 0.050\% | 0.050\% | 0.2 | 0.2 | 458\% | 458\% |
| 35 | 1 | 470 | 0.00213 | 0.050\% | 0.050\% | 0.2 | 0.2 | 426\% | 426\% |
| 36 | 1 | 495 | 0.00202 | 0.060\% | 0.060\% | 0.3 | 0.3 | 337\% | 337\% |
| 37 | 0 | 509 | 0.00000 | 0.070\% | 0.070\% | 0.4 | 0.4 | 0\% | 0\% |
| 38 | 0 | 542 | 0.00000 | 0.080\% | 0.080\% | 0.4 | 0.4 | 0\% | 0\% |
| 39 | 1 | 570 | 0.00175 | 0.090\% | 0.090\% | 0.5 | 0.5 | 195\% | 195\% |
| 40 | 1 | 641 | 0.00156 | 0.100\% | 0.100\% | 0.6 | 0.6 | 156\% | 156\% |
| 41 | 0 | 708 | 0.00000 | 0.110\% | 0.110\% | 0.8 | 0.8 | 0\% | 0\% |
| 42 | 0 | 797 | 0.00000 | 0.120\% | 0.120\% | 1.0 | 1.0 | 0\% | 0\% |
| 43 | 1 | 873 | 0.00115 | 0.130\% | 0.130\% | 1.1 | 1.1 | 88\% | 88\% |
| 44 | 1 | 897 | 0.00111 | 0.140\% | 0.140\% | 1.3 | 1.3 | 80\% | 80\% |
| 45 | 0 | 935 | 0.00000 | 0.150\% | 0.150\% | 1.4 | 1.4 | 0\% | 0\% |
| 46 | 2 | 970 | 0.00206 | 0.160\% | 0.160\% | 1.6 | 1.6 | 129\% | 129\% |
| 47 | 1 | 907 | 0.00110 | 0.170\% | 0.170\% | 1.5 | 1.5 | 65\% | 65\% |
| 48 | 1 | 848 | 0.00118 | 0.180\% | 0.180\% | 1.5 | 1.5 | 66\% | 66\% |
| 49 | 1 | 778 | 0.00129 | 0.190\% | 0.190\% | 1.5 | 1.5 | 68\% | 68\% |
| 50 | 0 | 687 | 0.00000 | 0.200\% | 0.200\% | 1.4 | 1.4 | 0\% | 0\% |
| 51 | 0 | 608 | 0.00000 | 0.210\% | 0.210\% | 1.3 | 1.3 | 0\% | 0\% |
| 52 | 0 | 540 | 0.00000 | 0.220\% | 0.220\% | 1.2 | 1.2 | 0\% | 0\% |
| 53 | 0 | 457 | 0.00000 | 0.230\% | 0.230\% | 1.1 | 1.1 | 0\% | 0\% |
| 54 | 0 | 379 | 0.00000 | 0.240\% | 0.240\% | 0.9 | 0.9 | 0\% | 0\% |
| 55 | 1 | 319 | 0.00313 | 0.250\% | 0.250\% | 0.8 | 0.8 | 125\% | 125\% |
| 56 | 1 | 275 | 0.00364 | 0.260\% | 0.260\% | 0.7 | 0.7 | 140\% | 140\% |
| 57 | 0 | 229 | 0.00000 | 0.270\% | 0.270\% | 0.6 | 0.6 | 0\% | 0\% |
| 58 | 0 | 196 | 0.00000 | 0.280\% | 0.280\% | 0.5 | 0.5 | 0\% | 0\% |
| 59 | 1 | 164 | 0.00610 | 0.290\% | 0.290\% | 0.5 | 0.5 | 210\% | 210\% |
| 60 | 1 | 113 | 0.00885 | 0.300\% | 0.300\% | 0.3 | 0.3 | 295\% | 295\% |
| 61 | 0 | 72 | 0.00000 | 0.320\% | 0.320\% | 0.2 | 0.2 | 0\% | 0\% |
| 62 | 0 | 53 | 0.00000 | 0.340\% | 0.340\% | 0.2 | 0.2 | 0\% | 0\% |
| 63 | 1 | 0 | N/A | 0.360\% | 0.360\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.380\% | 0.380\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.400\% | 0.400\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.440\% | 0.440\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.480\% | 0.480\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.520\% | 0.520\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.560\% | 0.560\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Total | 19 | 18,853 |  |  |  | 25.7 | 25.7 | 74\% | 74\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS
ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS
WOMEN

|  | TABLE 8B |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | $\begin{gathered} \text { Actual Rate } \\ (2) /(3) \\ \hline \end{gathered}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { Proposed } \\ (3) \times(6) \\ \hline \end{gathered}$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.030\% | 0.030\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 1 | 0.00000 | 0.030\% | 0.030\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 7 | 0.00000 | 0.030\% | 0.030\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 31 | 0.00000 | 0.030\% | 0.030\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 80 | 0.00000 | 0.030\% | 0.030\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 158 | 0.00000 | 0.024\% | 0.024\% | 0.0 | 0.0 | 0\% | 0\% |
| 26 | 0 | 219 | 0.00000 | 0.030\% | 0.030\% | 0.1 | 0.1 | 0\% | 0\% |
| 27 | 0 | 283 | 0.00000 | 0.030\% | 0.030\% | 0.1 | 0.1 | 0\% | 0\% |
| 28 | 0 | 347 | 0.00000 | 0.030\% | 0.030\% | 0.1 | 0.1 | 0\% | 0\% |
| 29 | 0 | 363 | 0.00000 | 0.030\% | 0.030\% | 0.1 | 0.1 | 0\% | 0\% |
| 30 | 0 | 408 | 0.00000 | 0.030\% | 0.030\% | 0.1 | 0.1 | 0\% | 0\% |
| 31 | 0 | 418 | 0.00000 | 0.030\% | 0.030\% | 0.1 | 0.1 | 0\% | 0\% |
| 32 | 0 | 416 | 0.00000 | 0.030\% | 0.030\% | 0.1 | 0.1 | 0\% | 0\% |
| 33 | 0 | 468 | 0.00000 | 0.030\% | 0.030\% | 0.1 | 0.1 | 0\% | 0\% |
| 34 | 0 | 473 | 0.00000 | 0.030\% | 0.030\% | 0.1 | 0.1 | 0\% | 0\% |
| 35 | 0 | 518 | 0.00000 | 0.030\% | 0.030\% | 0.2 | 0.2 | 0\% | 0\% |
| 36 | 0 | 529 | 0.00000 | 0.036\% | 0.036\% | 0.2 | 0.2 | 0\% | 0\% |
| 37 | 0 | 523 | 0.00000 | 0.042\% | 0.042\% | 0.2 | 0.2 | 0\% | 0\% |
| 38 | 0 | 533 | 0.00000 | 0.048\% | 0.048\% | 0.3 | 0.3 | 0\% | 0\% |
| 39 | 1 | 580 | 0.00172 | 0.054\% | 0.054\% | 0.3 | 0.3 | 319\% | 319\% |
| 40 | 1 | 652 | 0.00153 | 0.060\% | 0.060\% | 0.4 | 0.4 | 256\% | 256\% |
| 41 | 1 | 717 | 0.00139 | 0.066\% | 0.066\% | 0.5 | 0.5 | 211\% | 211\% |
| 42 | 0 | 739 | 0.00000 | 0.072\% | 0.072\% | 0.5 | 0.5 | 0\% | 0\% |
| 43 | 1 | 732 | 0.00137 | 0.078\% | 0.078\% | 0.6 | 0.6 | 175\% | 175\% |
| 44 | 0 | 754 | 0.00000 | 0.084\% | 0.084\% | 0.6 | 0.6 | 0\% | 0\% |
| 45 | 0 | 726 | 0.00000 | 0.090\% | 0.090\% | 0.7 | 0.7 | 0\% | 0\% |
| 46 | 0 | 725 | 0.00000 | 0.096\% | 0.096\% | 0.7 | 0.7 | 0\% | 0\% |
| 47 | 0 | 687 | 0.00000 | 0.102\% | 0.102\% | 0.7 | 0.7 | 0\% | 0\% |
| 48 | 1 | 635 | 0.00157 | 0.108\% | 0.108\% | 0.7 | 0.7 | 146\% | 146\% |
| 49 | 2 | 552 | 0.00362 | 0.114\% | 0.114\% | 0.6 | 0.6 | 318\% | 318\% |
| 50 | 1 | 455 | 0.00220 | 0.120\% | 0.120\% | 0.5 | 0.5 | 183\% | 183\% |
| 51 | 0 | 400 | 0.00000 | 0.128\% | 0.128\% | 0.5 | 0.5 | 0\% | 0\% |
| 52 | 0 | 339 | 0.00000 | 0.136\% | 0.136\% | 0.5 | 0.5 | 0\% | 0\% |
| 53 | 0 | 311 | 0.00000 | 0.144\% | 0.144\% | 0.4 | 0.4 | 0\% | 0\% |
| 54 | 0 | 251 | 0.00000 | 0.152\% | 0.152\% | 0.4 | 0.4 | 0\% | 0\% |
| 55 | 0 | 219 | 0.00000 | 0.160\% | 0.160\% | 0.4 | 0.4 | 0\% | 0\% |
| 56 | 0 | 176 | 0.00000 | 0.168\% | 0.168\% | 0.3 | 0.3 | 0\% | 0\% |
| 57 | 0 | 134 | 0.00000 | 0.176\% | 0.176\% | 0.2 | 0.2 | 0\% | 0\% |
| 58 | 0 | 85 | 0.00000 | 0.184\% | 0.184\% | 0.2 | 0.2 | 0\% | 0\% |
| 59 | 0 | 53 | 0.00000 | 0.192\% | 0.192\% | 0.1 | 0.1 | 0\% | 0\% |
| 60 | 0 | 45 | 0.00000 | 0.200\% | 0.200\% | 0.1 | 0.1 | 0\% | 0\% |
| 61 | 0 | 27 | 0.00000 | 0.210\% | 0.210\% | 0.1 | 0.1 | 0\% | 0\% |
| 62 | 0 | 19 | 0.00000 | 0.220\% | 0.220\% | 0.0 | 0.0 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 0.230\% | 0.230\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.240\% | 0.240\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.250\% | 0.250\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.280\% | 0.280\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.310\% | 0.310\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.340\% | 0.340\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.370\% | 0.370\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Total | 8 | 15,788 |  |  |  | 11.9 | 11.9 | 67\% | 67\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS
ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS
MEN AND WOMEN

|  | TABLE 8C |  |  | $\begin{array}{ccc} & \text { 4-YEAR PERIOD ENDING 6/30/2013 } \\ \text { Assumed Probability } & \text { Expected Deaths } & \\ \text { Actual/Expected }\end{array}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | $\begin{gathered} \text { Actual Rate } \\ (2) /(3) \\ \hline \end{gathered}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { Proposed } \\ (3) \times(6) \\ \hline \end{gathered}$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 2 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 20 | 0.00000 | 0.043\% | 0.043\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 74 | 0.00000 | 0.042\% | 0.042\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 179 | 0.00000 | 0.041\% | 0.041\% | 0.1 | 0.1 | 0\% | 0\% |
| 25 | 0 | 349 | 0.00000 | 0.033\% | 0.033\% | 0.1 | 0.1 | 0\% | 0\% |
| 26 | 1 | 480 | 0.00208 | 0.041\% | 0.041\% | 0.2 | 0.2 | 510\% | 510\% |
| 27 | 0 | 608 | 0.00000 | 0.041\% | 0.041\% | 0.2 | 0.2 | 0\% | 0\% |
| 28 | 0 | 727 | 0.00000 | 0.040\% | 0.040\% | 0.3 | 0.3 | 0\% | 0\% |
| 29 | 0 | 777 | 0.00000 | 0.041\% | 0.041\% | 0.3 | 0.3 | 0\% | 0\% |
| 30 | 1 | 828 | 0.00121 | 0.040\% | 0.040\% | 0.3 | 0.3 | 301\% | 301\% |
| 31 | 0 | 839 | 0.00000 | 0.040\% | 0.040\% | 0.3 | 0.3 | 0\% | 0\% |
| 32 | 0 | 820 | 0.00000 | 0.040\% | 0.040\% | 0.3 | 0.3 | 0\% | 0\% |
| 33 | 0 | 880 | 0.00000 | 0.039\% | 0.039\% | 0.3 | 0.3 | 0\% | 0\% |
| 34 | 1 | 910 | 0.00110 | 0.040\% | 0.040\% | 0.4 | 0.4 | 277\% | 277\% |
| 35 | 1 | 988 | 0.00101 | 0.040\% | 0.040\% | 0.4 | 0.4 | 256\% | 256\% |
| 36 | 1 | 1,024 | 0.00098 | 0.048\% | 0.048\% | 0.5 | 0.5 | 205\% | 205\% |
| 37 | 0 | 1,032 | 0.00000 | 0.056\% | 0.056\% | 0.6 | 0.6 | 0\% | 0\% |
| 38 | 0 | 1,075 | 0.00000 | 0.064\% | 0.064\% | 0.7 | 0.7 | 0\% | 0\% |
| 39 | 2 | 1,150 | 0.00174 | 0.072\% | 0.072\% | 0.8 | 0.8 | 242\% | 242\% |
| 40 | 2 | 1,293 | 0.00155 | 0.080\% | 0.080\% | 1.0 | 1.0 | 194\% | 194\% |
| 41 | 1 | 1,425 | 0.00070 | 0.088\% | 0.088\% | 1.3 | 1.3 | 80\% | 80\% |
| 42 | 0 | 1,536 | 0.00000 | 0.097\% | 0.097\% | 1.5 | 1.5 | 0\% | 0\% |
| 43 | 2 | 1,605 | 0.00125 | 0.106\% | 0.106\% | 1.7 | 1.7 | 117\% | 117\% |
| 44 | 1 | 1,651 | 0.00061 | 0.114\% | 0.114\% | 1.9 | 1.9 | 53\% | 53\% |
| 45 | 0 | 1,661 | 0.00000 | 0.124\% | 0.124\% | 2.1 | 2.1 | 0\% | 0\% |
| 46 | 2 | 1,695 | 0.00118 | 0.133\% | 0.133\% | 2.2 | 2.2 | 89\% | 89\% |
| 47 | 1 | 1,594 | 0.00063 | 0.141\% | 0.141\% | 2.2 | 2.2 | 45\% | 45\% |
| 48 | 2 | 1,483 | 0.00135 | 0.149\% | 0.149\% | 2.2 | 2.2 | 90\% | 90\% |
| 49 | 3 | 1,330 | 0.00226 | 0.158\% | 0.158\% | 2.1 | 2.1 | 142\% | 142\% |
| 50 | 1 | 1,142 | 0.00088 | 0.168\% | 0.168\% | 1.9 | 1.9 | 52\% | 52\% |
| 51 | 0 | 1,008 | 0.00000 | 0.177\% | 0.177\% | 1.8 | 1.8 | 0\% | 0\% |
| 52 | 0 | 879 | 0.00000 | 0.188\% | 0.188\% | 1.6 | 1.6 | 0\% | 0\% |
| 53 | 0 | 768 | 0.00000 | 0.195\% | 0.195\% | 1.5 | 1.5 | 0\% | 0\% |
| 54 | 0 | 630 | 0.00000 | 0.205\% | 0.205\% | 1.3 | 1.3 | 0\% | 0\% |
| 55 | 1 | 538 | 0.00186 | 0.213\% | 0.213\% | 1.1 | 1.1 | 87\% | 87\% |
| 56 | 1 | 451 | 0.00222 | 0.224\% | 0.224\% | 1.0 | 1.0 | 99\% | 99\% |
| 57 | 0 | 363 | 0.00000 | 0.235\% | 0.235\% | 0.9 | 0.9 | 0\% | 0\% |
| 58 | 0 | 281 | 0.00000 | 0.251\% | 0.251\% | 0.7 | 0.7 | 0\% | 0\% |
| 59 | 1 | 217 | 0.00461 | 0.266\% | 0.266\% | 0.6 | 0.6 | 173\% | 173\% |
| 60 | 1 | 158 | 0.00633 | 0.272\% | 0.272\% | 0.4 | 0.4 | 233\% | 233\% |
| 61 | 0 | 99 | 0.00000 | 0.290\% | 0.290\% | 0.3 | 0.3 | 0\% | 0\% |
| 62 | 0 | 72 | 0.00000 | 0.308\% | 0.308\% | 0.2 | 0.2 | 0\% | 0\% |
| 63 | 1 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Total | 27 | 34,641 |  |  |  | 37.6 | 37.6 | 72\% | 72\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN

|  | TABLE 8A GROUPED |  |  | $\begin{array}{ccc} & \text { 4-YEAR PERIOD ENDING 6/30/2013 } \\ \text { Expected Deaths } & \\ \text { Actual/Expected }\end{array}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total Exposed | Actual Rate $(2) /(3)$ | Expected $(7) /(3)$ | Proposed $(\mathbf{8}) /(3)$ | Expected | Proposed | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 156 | 0.00000 | 0.050\% | 0.050\% | 0.1 | 0.1 | 0\% | 0\% |
| 25-29 | 1 | 1,571 | 0.00064 | 0.049\% | 0.049\% | 0.8 | 0.8 | 130\% | 130\% |
| 30-34 | 2 | 2,094 | 0.00096 | 0.050\% | 0.050\% | 1.0 | 1.0 | 191\% | 191\% |
| 35-39 | 3 | 2,586 | 0.00116 | 0.071\% | 0.071\% | 1.8 | 1.8 | 163\% | 163\% |
| 40-44 | 3 | 3,916 | 0.00077 | 0.122\% | 0.122\% | 4.8 | 4.8 | 63\% | 63\% |
| 45-49 | 5 | 4,438 | 0.00113 | 0.169\% | 0.169\% | 7.5 | 7.5 | 67\% | 67\% |
| 50-54 | 0 | 2,671 | 0.00000 | 0.217\% | 0.217\% | 5.8 | 5.8 | 0\% | 0\% |
| 55-59 | 3 | 1,183 | 0.00254 | 0.267\% | 0.267\% | 3.2 | 3.2 | 95\% | 95\% |
| 60-64 | 2 | 238 | 0.00840 | 0.315\% | 0.315\% | 0.7 | 0.7 | 267\% | 267\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 19 | 18,853 |  |  |  | 25.7 | 25.7 | 74\% | 74\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

|  | TABLE 8B GROUPED |  |  | $\begin{array}{lc} & \text { 4-YEAR PERIOD ENDING 6/30/2013 } \\ \text { Assumed Probability } & \text { Expected Deaths }\end{array}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total Exposed | Actual Rate $(2) /(3)$ | Expected $(7) /(3)$ | Proposed (8) / (3) | Expected | Proposed | Expected (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 119 | 0.00000 | 0.030\% | 0.030\% | 0.0 | 0.0 | 0\% | 0\% |
| 25-29 | 0 | 1,370 | 0.00000 | 0.029\% | 0.029\% | 0.4 | 0.4 | 0\% | 0\% |
| 30-34 | 0 | 2,183 | 0.00000 | 0.030\% | 0.030\% | 0.7 | 0.7 | 0\% | 0\% |
| 35-39 | 1 | 2,683 | 0.00037 | 0.042\% | 0.042\% | 1.1 | 1.1 | 88\% | 88\% |
| 40-44 | 3 | 3,594 | 0.00083 | 0.072\% | 0.072\% | 2.6 | 2.6 | 115\% | 115\% |
| 45-49 | 3 | 3,325 | 0.00090 | 0.101\% | 0.101\% | 3.4 | 3.4 | 89\% | 89\% |
| 50-54 | 1 | 1,756 | 0.00057 | 0.134\% | 0.134\% | 2.3 | 2.3 | 43\% | 43\% |
| 55-59 | 0 | 667 | 0.00000 | 0.171\% | 0.171\% | 1.1 | 1.1 | 0\% | 0\% |
| 60-64 | 0 | 91 | 0.00000 | 0.207\% | 0.207\% | 0.2 | 0.2 | 0\% | 0\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 8 | 15,788 |  |  |  | 11.9 | 11.9 | 67\% | 67\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

|  | TABLE 8C GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected $(7) /(3)$ | $\begin{gathered} \hline \text { Proposed } \\ (8) /(3) \\ \hline \end{gathered}$ | Expected | Proposed | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 275 | 0.00000 | 0.041\% | 0.041\% | 0.1 | 0.1 | 0\% | 0\% |
| 25-29 | 1 | 2,941 | 0.00034 | 0.040\% | 0.040\% | 1.2 | 1.2 | 86\% | 86\% |
| 30-34 | 2 | 4,277 | 0.00047 | 0.040\% | 0.040\% | 1.7 | 1.7 | 118\% | 118\% |
| 35-39 | 4 | 5,269 | 0.00076 | 0.056\% | 0.056\% | 3.0 | 3.0 | 135\% | 135\% |
| 40-44 | 6 | 7,510 | 0.00080 | 0.098\% | 0.098\% | 7.4 | 7.4 | 81\% | 81\% |
| 45-49 | 8 | 7,763 | 0.00103 | 0.140\% | 0.140\% | 10.9 | 10.9 | 74\% | 74\% |
| 50-54 | 1 | 4,427 | 0.00023 | 0.184\% | 0.184\% | 8.1 | 8.1 | 12\% | 12\% |
| 55-59 | 3 | 1,850 | 0.00162 | 0.232\% | 0.232\% | 4.3 | 4.3 | 70\% | 70\% |
| 60-64 | 2 | 329 | 0.00608 | 0.285\% | 0.285\% | 0.9 | 0.9 | 213\% | 213\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 27 | 34,641 |  |  |  | 37.6 | 37.6 | 72\% | 72\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN

|  | TABLE 8A |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \quad(2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \hline \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { Proposed } \\ (3) \times(6) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { Proposed } \\ (2) /(\mathbf{8}) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 2 | 0.00000 | 0.050\% | 0.050\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 8 | 0.00000 | 0.050\% | 0.050\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 43 | 0.00000 | 0.050\% | 0.050\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 141 | 0.00000 | 0.050\% | 0.050\% | 0.1 | 0.1 | 0\% | 0\% |
| 24 | 0 | 243 | 0.00000 | 0.050\% | 0.050\% | 0.1 | 0.1 | 0\% | 0\% |
| 25 | 0 | 399 | 0.00000 | 0.040\% | 0.040\% | 0.2 | 0.2 | 0\% | 0\% |
| 26 | 1 | 537 | 0.00186 | 0.050\% | 0.050\% | 0.3 | 0.3 | 372\% | 372\% |
| 27 | 0 | 648 | 0.00000 | 0.050\% | 0.050\% | 0.3 | 0.3 | 0\% | 0\% |
| 28 | 0 | 745 | 0.00000 | 0.050\% | 0.050\% | 0.4 | 0.4 | 0\% | 0\% |
| 29 | 0 | 850 | 0.00000 | 0.050\% | 0.050\% | 0.4 | 0.4 | 0\% | 0\% |
| 30 | 2 | 895 | 0.00223 | 0.050\% | 0.050\% | 0.4 | 0.4 | 447\% | 447\% |
| 31 | 0 | 955 | 0.00000 | 0.050\% | 0.050\% | 0.5 | 0.5 | 0\% | 0\% |
| 32 | 0 | 983 | 0.00000 | 0.050\% | 0.050\% | 0.5 | 0.5 | 0\% | 0\% |
| 33 | 0 | 1,059 | 0.00000 | 0.050\% | 0.050\% | 0.5 | 0.5 | 0\% | 0\% |
| 34 | 1 | 1,172 | 0.00085 | 0.050\% | 0.050\% | 0.6 | 0.6 | 171\% | 171\% |
| 35 | 1 | 1,294 | 0.00077 | 0.050\% | 0.050\% | 0.6 | 0.6 | 155\% | 155\% |
| 36 | 1 | 1,494 | 0.00067 | 0.060\% | 0.060\% | 0.9 | 0.9 | 112\% | 112\% |
| 37 | 0 | 1,718 | 0.00000 | 0.070\% | 0.070\% | 1.2 | 1.2 | 0\% | 0\% |
| 38 | 1 | 1,996 | 0.00050 | 0.080\% | 0.080\% | 1.6 | 1.6 | 63\% | 63\% |
| 39 | 4 | 2,295 | 0.00174 | 0.090\% | 0.090\% | 2.1 | 2.1 | 194\% | 194\% |
| 40 | 3 | 2,644 | 0.00113 | 0.100\% | 0.100\% | 2.6 | 2.6 | 113\% | 113\% |
| 41 | 3 | 2,839 | 0.00106 | 0.110\% | 0.110\% | 3.1 | 3.1 | 96\% | 96\% |
| 42 | 1 | 2,934 | 0.00034 | 0.120\% | 0.120\% | 3.5 | 3.5 | 28\% | 28\% |
| 43 | 1 | 2,914 | 0.00034 | 0.130\% | 0.130\% | 3.8 | 3.8 | 26\% | 26\% |
| 44 | 1 | 2,781 | 0.00036 | 0.140\% | 0.140\% | 3.9 | 3.9 | 26\% | 26\% |
| 45 | 2 | 2,628 | 0.00076 | 0.150\% | 0.150\% | 3.9 | 3.9 | 51\% | 51\% |
| 46 | 3 | 2,471 | 0.00121 | 0.160\% | 0.160\% | 4.0 | 4.0 | 76\% | 76\% |
| 47 | 1 | 2,289 | 0.00044 | 0.170\% | 0.170\% | 3.9 | 3.9 | 26\% | 26\% |
| 48 | 5 | 2,076 | 0.00241 | 0.180\% | 0.180\% | 3.7 | 3.7 | 134\% | 134\% |
| 49 | 1 | 1,826 | 0.00055 | 0.190\% | 0.190\% | 3.5 | 3.5 | 29\% | 29\% |
| 50 | 2 | 1,590 | 0.00126 | 0.200\% | 0.200\% | 3.2 | 3.2 | 63\% | 63\% |
| 51 | 1 | 1,367 | 0.00073 | 0.210\% | 0.210\% | 2.9 | 2.9 | 35\% | 35\% |
| 52 | 0 | 1,173 | 0.00000 | 0.220\% | 0.220\% | 2.6 | 2.6 | 0\% | 0\% |
| 53 | 0 | 957 | 0.00000 | 0.230\% | 0.230\% | 2.2 | 2.2 | 0\% | 0\% |
| 54 | 1 | 763 | 0.00131 | 0.240\% | 0.240\% | 1.8 | 1.8 | 55\% | 55\% |
| 55 | 2 | 624 | 0.00321 | 0.250\% | 0.250\% | 1.6 | 1.6 | 128\% | 128\% |
| 56 | 1 | 497 | 0.00201 | 0.260\% | 0.260\% | 1.3 | 1.3 | 77\% | 77\% |
| 57 | 1 | 400 | 0.00250 | 0.270\% | 0.270\% | 1.1 | 1.1 | 93\% | 93\% |
| 58 | 0 | 311 | 0.00000 | 0.280\% | 0.280\% | 0.9 | 0.9 | 0\% | 0\% |
| 59 | 1 | 236 | 0.00424 | 0.290\% | 0.290\% | 0.7 | 0.7 | 146\% | 146\% |
| 60 | 2 | 163 | 0.01227 | 0.300\% | 0.300\% | 0.5 | 0.5 | 409\% | 409\% |
| 61 | 0 | 102 | 0.00000 | 0.320\% | 0.320\% | 0.3 | 0.3 | 0\% | 0\% |
| 62 | 0 | 66 | 0.00000 | 0.340\% | 0.340\% | 0.2 | 0.2 | 0\% | 0\% |
| 63 | 1 | 0 | N/A | 0.360\% | 0.360\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.380\% | 0.380\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.400\% | 0.400\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.440\% | 0.440\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.480\% | 0.480\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.520\% | 0.520\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.560\% | 0.560\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Total | 44 | 51,128 |  |  |  | 65.9 | 65.9 | 67\% | 67\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

|  | TABLE 8B |  |  | Assumed | bability | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \quad(2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \hline \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { Proposed } \\ (3) \times(6) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 1 | 0.00000 | 0.030\% | 0.030\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 5 | 0.00000 | 0.030\% | 0.030\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 28 | 0.00000 | 0.030\% | 0.030\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 110 | 0.00000 | 0.030\% | 0.030\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 255 | 0.00000 | 0.030\% | 0.030\% | 0.1 | 0.1 | 0\% | 0\% |
| 25 | 1 | 405 | 0.00247 | 0.024\% | 0.024\% | 0.1 | 0.1 | 1029\% | 1029\% |
| 26 | 0 | 512 | 0.00000 | 0.030\% | 0.030\% | 0.2 | 0.2 | 0\% | 0\% |
| 27 | 0 | 661 | 0.00000 | 0.030\% | 0.030\% | 0.2 | 0.2 | 0\% | 0\% |
| 28 | 0 | 775 | 0.00000 | 0.030\% | 0.030\% | 0.2 | 0.2 | 0\% | 0\% |
| 29 | 0 | 866 | 0.00000 | 0.030\% | 0.030\% | 0.3 | 0.3 | 0\% | 0\% |
| 30 | 0 | 944 | 0.00000 | 0.030\% | 0.030\% | 0.3 | 0.3 | 0\% | 0\% |
| 31 | 0 | 1,014 | 0.00000 | 0.030\% | 0.030\% | 0.3 | 0.3 | 0\% | 0\% |
| 32 | 0 | 1,072 | 0.00000 | 0.030\% | 0.030\% | 0.3 | 0.3 | 0\% | 0\% |
| 33 | 0 | 1,184 | 0.00000 | 0.030\% | 0.030\% | 0.4 | 0.4 | 0\% | 0\% |
| 34 | 0 | 1,268 | 0.00000 | 0.030\% | 0.030\% | 0.4 | 0.4 | 0\% | 0\% |
| 35 | 0 | 1,388 | 0.00000 | 0.030\% | 0.030\% | 0.4 | 0.4 | 0\% | 0\% |
| 36 | 1 | 1,488 | 0.00067 | 0.036\% | 0.036\% | 0.5 | 0.5 | 187\% | 187\% |
| 37 | 0 | 1,617 | 0.00000 | 0.042\% | 0.042\% | 0.7 | 0.7 | 0\% | 0\% |
| 38 | 1 | 1,788 | 0.00056 | 0.048\% | 0.048\% | 0.9 | 0.9 | 117\% | 117\% |
| 39 | 2 | 1,906 | 0.00105 | 0.054\% | 0.054\% | 1.0 | 1.0 | 194\% | 194\% |
| 40 | 1 | 2,078 | 0.00048 | 0.060\% | 0.060\% | 1.2 | 1.2 | 80\% | 80\% |
| 41 | 1 | 2,194 | 0.00046 | 0.066\% | 0.066\% | 1.4 | 1.4 | 69\% | 69\% |
| 42 | 3 | 2,245 | 0.00134 | 0.072\% | 0.072\% | 1.6 | 1.6 | 186\% | 186\% |
| 43 | 1 | 2,159 | 0.00046 | 0.078\% | 0.078\% | 1.7 | 1.7 | 59\% | 59\% |
| 44 | 2 | 2,063 | 0.00097 | 0.084\% | 0.084\% | 1.7 | 1.7 | 115\% | 115\% |
| 45 | 1 | 1,889 | 0.00053 | 0.090\% | 0.090\% | 1.7 | 1.7 | 59\% | 59\% |
| 46 | 0 | 1,735 | 0.00000 | 0.096\% | 0.096\% | 1.7 | 1.7 | 0\% | 0\% |
| 47 | 0 | 1,568 | 0.00000 | 0.102\% | 0.102\% | 1.6 | 1.6 | 0\% | 0\% |
| 48 | 2 | 1,378 | 0.00145 | 0.108\% | 0.108\% | 1.5 | 1.5 | 134\% | 134\% |
| 49 | 3 | 1,222 | 0.00245 | 0.114\% | 0.114\% | 1.4 | 1.4 | 215\% | 215\% |
| 50 | 1 | 1,031 | 0.00097 | 0.120\% | 0.120\% | 1.2 | 1.2 | 81\% | 81\% |
| 51 | 0 | 892 | 0.00000 | 0.128\% | 0.128\% | 1.1 | 1.1 | 0\% | 0\% |
| 52 | 0 | 706 | 0.00000 | 0.136\% | 0.136\% | 1.0 | 1.0 | 0\% | 0\% |
| 53 | 1 | 584 | 0.00171 | 0.144\% | 0.144\% | 0.8 | 0.8 | 119\% | 119\% |
| 54 | 0 | 462 | 0.00000 | 0.152\% | 0.152\% | 0.7 | 0.7 | 0\% | 0\% |
| 55 | 1 | 360 | 0.00278 | 0.160\% | 0.160\% | 0.6 | 0.6 | 174\% | 174\% |
| 56 | 0 | 269 | 0.00000 | 0.168\% | 0.168\% | 0.5 | 0.5 | 0\% | 0\% |
| 57 | 0 | 193 | 0.00000 | 0.176\% | 0.176\% | 0.3 | 0.3 | 0\% | 0\% |
| 58 | 1 | 129 | 0.00775 | 0.184\% | 0.184\% | 0.2 | 0.2 | 421\% | 421\% |
| 59 | 0 | 82 | 0.00000 | 0.192\% | 0.192\% | 0.2 | 0.2 | 0\% | 0\% |
| 60 | 0 | 57 | 0.00000 | 0.200\% | 0.200\% | 0.1 | 0.1 | 0\% | 0\% |
| 61 | 0 | 33 | 0.00000 | 0.210\% | 0.210\% | 0.1 | 0.1 | 0\% | 0\% |
| 62 | 0 | 25 | 0.00000 | 0.220\% | 0.220\% | 0.1 | 0.1 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 0.230\% | 0.230\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.240\% | 0.240\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.250\% | 0.250\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.280\% | 0.280\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.310\% | 0.310\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.340\% | 0.340\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.370\% | 0.370\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Total | 23 | 40,641 |  |  |  | 28.7 | 28.7 | 80\% | 80\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS
ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS
MEN AND WOMEN

|  | TABLE 8C |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2)/(3) } \\ & \hline \end{aligned}$ | Expected | Proposed | Expected (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 3 | 0.00000 | 0.043\% | 0.043\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 13 | 0.00000 | 0.042\% | 0.042\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 71 | 0.00000 | 0.042\% | 0.042\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 251 | 0.00000 | 0.041\% | 0.041\% | 0.1 | 0.1 | 0\% | 0\% |
| 24 | 0 | 498 | 0.00000 | 0.040\% | 0.040\% | 0.2 | 0.2 | 0\% | 0\% |
| 25 | 1 | 804 | 0.00124 | 0.032\% | 0.032\% | 0.3 | 0.3 | 389\% | 389\% |
| 26 | 1 | 1,049 | 0.00095 | 0.040\% | 0.040\% | 0.4 | 0.4 | 237\% | 237\% |
| 27 | 0 | 1,309 | 0.00000 | 0.040\% | 0.040\% | 0.5 | 0.5 | 0\% | 0\% |
| 28 | 0 | 1,520 | 0.00000 | 0.040\% | 0.040\% | 0.6 | 0.6 | 0\% | 0\% |
| 29 | 0 | 1,716 | 0.00000 | 0.040\% | 0.040\% | 0.7 | 0.7 | 0\% | 0\% |
| 30 | 2 | 1,839 | 0.00109 | 0.040\% | 0.040\% | 0.7 | 0.7 | 274\% | 274\% |
| 31 | 0 | 1,969 | 0.00000 | 0.040\% | 0.040\% | 0.8 | 0.8 | 0\% | 0\% |
| 32 | 0 | 2,055 | 0.00000 | 0.040\% | 0.040\% | 0.8 | 0.8 | 0\% | 0\% |
| 33 | 0 | 2,243 | 0.00000 | 0.039\% | 0.039\% | 0.9 | 0.9 | 0\% | 0\% |
| 34 | 1 | 2,440 | 0.00041 | 0.040\% | 0.040\% | 1.0 | 1.0 | 103\% | 103\% |
| 35 | 1 | 2,682 | 0.00037 | 0.040\% | 0.040\% | 1.1 | 1.1 | 94\% | 94\% |
| 36 | 2 | 2,982 | 0.00067 | 0.048\% | 0.048\% | 1.4 | 1.4 | 140\% | 140\% |
| 37 | 0 | 3,335 | 0.00000 | 0.056\% | 0.056\% | 1.9 | 1.9 | 0\% | 0\% |
| 38 | 2 | 3,784 | 0.00053 | 0.065\% | 0.065\% | 2.5 | 2.5 | 81\% | 81\% |
| 39 | 6 | 4,201 | 0.00143 | 0.074\% | 0.074\% | 3.1 | 3.1 | 194\% | 194\% |
| 40 | 4 | 4,722 | 0.00085 | 0.082\% | 0.082\% | 3.9 | 3.9 | 103\% | 103\% |
| 41 | 4 | 5,033 | 0.00079 | 0.091\% | 0.091\% | 4.6 | 4.6 | 88\% | 88\% |
| 42 | 4 | 5,179 | 0.00077 | 0.099\% | 0.099\% | 5.1 | 5.1 | 78\% | 78\% |
| 43 | 2 | 5,073 | 0.00039 | 0.108\% | 0.108\% | 5.5 | 5.5 | 37\% | 37\% |
| 44 | 3 | 4,844 | 0.00062 | 0.116\% | 0.116\% | 5.6 | 5.6 | 53\% | 53\% |
| 45 | 3 | 4,517 | 0.00066 | 0.125\% | 0.125\% | 5.6 | 5.6 | 53\% | 53\% |
| 46 | 3 | 4,206 | 0.00071 | 0.134\% | 0.134\% | 5.6 | 5.6 | 53\% | 53\% |
| 47 | 1 | 3,857 | 0.00026 | 0.142\% | 0.142\% | 5.5 | 5.5 | 18\% | 18\% |
| 48 | 7 | 3,454 | 0.00203 | 0.151\% | 0.151\% | 5.2 | 5.2 | 134\% | 134\% |
| 49 | 4 | 3,048 | 0.00131 | 0.160\% | 0.160\% | 4.9 | 4.9 | 82\% | 82\% |
| 50 | 3 | 2,621 | 0.00114 | 0.169\% | 0.169\% | 4.4 | 4.4 | 68\% | 68\% |
| 51 | 1 | 2,259 | 0.00044 | 0.178\% | 0.178\% | 4.0 | 4.0 | 25\% | 25\% |
| 52 | 0 | 1,879 | 0.00000 | 0.188\% | 0.188\% | 3.5 | 3.5 | 0\% | 0\% |
| 53 | 1 | 1,541 | 0.00065 | 0.197\% | 0.197\% | 3.0 | 3.0 | 33\% | 33\% |
| 54 | 1 | 1,225 | 0.00082 | 0.207\% | 0.207\% | 2.5 | 2.5 | 39\% | 39\% |
| 55 | 3 | 984 | 0.00305 | 0.217\% | 0.217\% | 2.1 | 2.1 | 140\% | 140\% |
| 56 | 1 | 766 | 0.00131 | 0.228\% | 0.228\% | 1.7 | 1.7 | 57\% | 57\% |
| 57 | 1 | 593 | 0.00169 | 0.239\% | 0.239\% | 1.4 | 1.4 | 70\% | 70\% |
| 58 | 1 | 440 | 0.00227 | 0.252\% | 0.252\% | 1.1 | 1.1 | 90\% | 90\% |
| 59 | 1 | 318 | 0.00314 | 0.265\% | 0.265\% | 0.8 | 0.8 | 119\% | 119\% |
| 60 | 2 | 220 | 0.00909 | 0.274\% | 0.274\% | 0.6 | 0.6 | 332\% | 332\% |
| 61 | 0 | 135 | 0.00000 | 0.293\% | 0.293\% | 0.4 | 0.4 | 0\% | 0\% |
| 62 | 0 | 91 | 0.00000 | 0.307\% | 0.307\% | 0.3 | 0.3 | 0\% | 0\% |
| 63 | 1 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Total | 67 | 91,769 |  |  |  | 94.5 | 94.5 | 71\% | 71\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN

|  | TABLE 8A GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total Exposed | $\begin{gathered} \text { Actual Rate } \\ (2) /(3) \\ \hline \end{gathered}$ | Expected $(7) /(3)$ | $\begin{gathered} \hline \text { Proposed } \\ (8) /(3) \\ \hline \end{gathered}$ | Expected | Proposed | $\begin{gathered} \hline \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 437 | 0.00000 | 0.050\% | 0.050\% | 0.2 | 0.2 | 0\% | 0\% |
| 25-29 | 1 | 3,179 | 0.00031 | 0.049\% | 0.049\% | 1.5 | 1.5 | 65\% | 65\% |
| 30-34 | 3 | 5,064 | 0.00059 | 0.050\% | 0.050\% | 2.5 | 2.5 | 118\% | 118\% |
| 35-39 | 7 | 8,797 | 0.00080 | 0.073\% | 0.073\% | 6.4 | 6.4 | 109\% | 109\% |
| 40-44 | 9 | 14,112 | 0.00064 | 0.120\% | 0.120\% | 17.0 | 17.0 | 53\% | 53\% |
| 45-49 | 12 | 11,290 | 0.00106 | 0.168\% | 0.168\% | 19.0 | 19.0 | 63\% | 63\% |
| 50-54 | 4 | 5,850 | 0.00068 | 0.216\% | 0.216\% | 12.7 | 12.7 | 32\% | 32\% |
| 55-59 | 5 | 2,068 | 0.00242 | 0.265\% | 0.265\% | 5.5 | 5.5 | 91\% | 91\% |
| 60-64 | 3 | 331 | 0.00906 | 0.314\% | 0.314\% | 1.0 | 1.0 | 289\% | 289\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 44 | 51,128 |  |  |  | 65.9 | 65.9 | 67\% | 67\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

|  | TABLE 8B GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total Exposed | Actual Rate $(2) /(3)$ | Expected $(7) /(3)$ | Proposed (8) / (3) | Expected | Proposed | Expected (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 399 | 0.00000 | 0.030\% | 0.030\% | 0.1 | 0.1 | 0\% | 0\% |
| 25-29 | 1 | 3,219 | 0.00031 | 0.029\% | 0.029\% | 0.9 | 0.9 | 106\% | 106\% |
| 30-34 | 0 | 5,482 | 0.00000 | 0.030\% | 0.030\% | 1.6 | 1.6 | 0\% | 0\% |
| 35-39 | 4 | 8,187 | 0.00049 | 0.043\% | 0.043\% | 3.5 | 3.5 | 114\% | 114\% |
| 40-44 | 8 | 10,739 | 0.00074 | 0.072\% | 0.072\% | 7.7 | 7.7 | 104\% | 104\% |
| 45-49 | 6 | 7,792 | 0.00077 | 0.101\% | 0.101\% | 7.8 | 7.8 | 76\% | 76\% |
| 50-54 | 2 | 3,675 | 0.00054 | 0.133\% | 0.133\% | 4.9 | 4.9 | 41\% | 41\% |
| 55-59 | 2 | 1,033 | 0.00194 | 0.171\% | 0.171\% | 1.8 | 1.8 | 113\% | 113\% |
| 60-64 | 0 | 115 | 0.00000 | 0.207\% | 0.207\% | 0.2 | 0.2 | 0\% | 0\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 23 | 40,641 |  |  |  | 28.7 | 28.7 | 80\% | 80\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

|  | TABLE 8C GROUPED |  |  | $\begin{array}{lcl} & \text { 10-YEAR PERIOD ENDING 6/30/2013 } \\ \text { Assumed Probability } & \text { Expected Deaths } & \\ \text { Actual/Expected }\end{array}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | $\begin{gathered} \text { Actual Rate } \\ (2) /(3) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Expected } \\ (7) /(3) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { Proposed } \\ (8) /(3) \\ \hline \end{gathered}$ | Expected | Proposed | Expected $(2) /(7)$ | $\begin{gathered} \hline \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 836 | 0.00000 | 0.040\% | 0.040\% | 0.3 | 0.3 | 0\% | 0\% |
| 25-29 | 2 | 6,398 | 0.00031 | 0.039\% | 0.039\% | 2.5 | 2.5 | 80\% | 80\% |
| 30-34 | 3 | 10,546 | 0.00028 | 0.040\% | 0.040\% | 4.2 | 4.2 | 72\% | 72\% |
| 35-39 | 11 | 16,984 | 0.00065 | 0.058\% | 0.058\% | 9.9 | 9.9 | 111\% | 111\% |
| 40-44 | 17 | 24,851 | 0.00068 | 0.099\% | 0.099\% | 24.7 | 24.7 | 69\% | 69\% |
| 45-49 | 18 | 19,082 | 0.00094 | 0.141\% | 0.141\% | 26.8 | 26.8 | 67\% | 67\% |
| 50-54 | 6 | 9,525 | 0.00063 | 0.184\% | 0.184\% | 17.5 | 17.5 | 34\% | 34\% |
| 55-59 | 7 | 3,101 | 0.00226 | 0.234\% | 0.234\% | 7.2 | 7.2 | 97\% | 97\% |
| 60-64 | 3 | 446 | 0.00673 | 0.287\% | 0.287\% | 1.3 | 1.3 | 235\% | 235\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 67 | 91,769 |  |  |  | 94.5 | 94.5 | 71\% | 71\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| $\begin{aligned} & \text { Plan } \\ & \text { Year } \end{aligned}$ | TABLE 8D |  | 10-YEAR PERIOD ENDING 6/30/2013 Mortality Rate |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending June 30, | Life Years Exposed | Actual <br> Deaths | Expected Deaths | Actual / <br> Expected | Actual <br> (3) / (2) | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 10,080 | 12 | 9.8 | 122\% | 0.119\% | 0.097\% |
| 2005 | 9,682 | 6 | 9.7 | 62\% | 0.062\% | 0.100\% |
| 2006 | 9,464 | 6 | 9.7 | 62\% | 0.063\% | 0.103\% |
| 2007 | 9,444 | 1 | 9.8 | 10\% | 0.011\% | 0.104\% |
| 2008 | 9,327 | 5 | 9.7 | 51\% | 0.054\% | 0.104\% |
| 2009 | 9,131 | 10 | 9.7 | 103\% | 0.110\% | 0.106\% |
| 2010 | 9,183 | 9 | 9.9 | 91\% | 0.098\% | 0.108\% |
| 2011 | 8,823 | 11 | 9.8 | 112\% | 0.125\% | 0.111\% |
| 2012 | 8,378 | 6 | 9.5 | 63\% | 0.072\% | 0.113\% |
| 2013 | 8,257 | 1 | 9.4 | 11\% | 0.012\% | 0.114\% |
| Total | 91,769 | 67 | 97.1 | 69\% | 0.073\% | 0.106\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS aCCIDENTAL MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

|  | TABLE 9A |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total Exposed | $\begin{gathered} \text { Actual Rate } \\ (2) /(3) \\ \hline \end{gathered}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.010\% | 0.010\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.010\% | 0.010\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 13 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 63 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 149 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 298 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 26 | 0 | 421 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 538 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 28 | 0 | 659 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 29 | 0 | 714 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 30 | 0 | 766 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 31 | 0 | 785 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 32 | 0 | 768 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 33 | 0 | 833 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 34 | 0 | 857 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 35 | 0 | 956 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 36 | 0 | 992 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 37 | 0 | 1,008 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 38 | 0 | 1,047 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 39 | 0 | 1,121 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 40 | 0 | 1,268 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 41 | 0 | 1,406 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 42 | 0 | 1,515 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 43 | 0 | 1,590 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 44 | 0 | 1,642 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 45 | 0 | 1,653 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 46 | 0 | 1,691 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 47 | 0 | 1,588 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 48 | 0 | 1,478 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 49 | 0 | 1,328 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 50 | 0 | 1,139 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 51 | 0 | 1,006 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 52 | 0 | 879 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 53 | 0 | 765 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 54 | 0 | 627 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 55 | 0 | 535 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 56 | 0 | 451 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 57 | 0 | 363 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 58 | 0 | 281 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 59 | 0 | 217 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 60 | 0 | 158 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 61 | 0 | 99 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 62 | 0 | 72 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 0.010\% | 0.010\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.010\% | 0.010\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.010\% | 0.010\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.010\% | 0.010\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.010\% | 0.010\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.010\% | 0.010\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.010\% | 0.010\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Total | 0 | 33,739 |  |  |  | 3.4 | 3.4 | 0\% | 0\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS ACCIDENTAL MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

|  | TABLE 9A GROUPED |  |  | $\begin{array}{lc} \\ \text { Assumed Probability } & \text { 4-YEAR PERIOD ENDING 6/30/2013 } \\ \text { Expected Deaths } & \\ \text { Actual/Expected }\end{array}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | $\begin{gathered} \text { Actual Rate } \\ (2) /(3) \\ \hline \end{gathered}$ | Expected $\qquad$ | $\begin{gathered} \hline \text { Proposed } \\ (8) /(3) \\ \hline \end{gathered}$ | Expected | Proposed | $\begin{gathered} \hline \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 225 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 25-29 | 0 | 2,630 | 0.00000 | 0.010\% | 0.010\% | 0.3 | 0.3 | 0\% | 0\% |
| 30-34 | 0 | 4,009 | 0.00000 | 0.010\% | 0.010\% | 0.4 | 0.4 | 0\% | 0\% |
| 35-39 | 0 | 5,124 | 0.00000 | 0.010\% | 0.010\% | 0.5 | 0.5 | 0\% | 0\% |
| 40-44 | 0 | 7,421 | 0.00000 | 0.010\% | 0.010\% | 0.7 | 0.7 | 0\% | 0\% |
| 45-49 | 0 | 7,738 | 0.00000 | 0.010\% | 0.010\% | 0.8 | 0.8 | 0\% | 0\% |
| 50-54 | 0 | 4,416 | 0.00000 | 0.010\% | 0.010\% | 0.4 | 0.4 | 0\% | 0\% |
| 55-59 | 0 | 1,847 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 60-64 | 0 | 329 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 0 | 33,739 |  |  |  | 3.4 | 3.4 | 0\% | 0\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS aCCIDENTAL MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

|  | TABLE 9A |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total Exposed | $\begin{gathered} \text { Actual Rate } \\ (2) /(3) \\ \hline \end{gathered}$ | Expected | Proposed | $\begin{gathered} \hline \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { Proposed } \\ (3) \times(6) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.010\% | 0.010\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.010\% | 0.010\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 44 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 185 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 371 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 638 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 26 | 0 | 863 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 27 | 0 | 1,099 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 28 | 0 | 1,330 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 29 | 0 | 1,521 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 30 | 0 | 1,653 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 31 | 0 | 1,801 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 32 | 0 | 1,908 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 33 | 0 | 2,100 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 34 | 0 | 2,320 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 35 | 0 | 2,574 | 0.00000 | 0.010\% | 0.010\% | 0.3 | 0.3 | 0\% | 0\% |
| 36 | 0 | 2,875 | 0.00000 | 0.010\% | 0.010\% | 0.3 | 0.3 | 0\% | 0\% |
| 37 | 0 | 3,244 | 0.00000 | 0.010\% | 0.010\% | 0.3 | 0.3 | 0\% | 0\% |
| 38 | 0 | 3,697 | 0.00000 | 0.010\% | 0.010\% | 0.4 | 0.4 | 0\% | 0\% |
| 39 | 0 | 4,124 | 0.00000 | 0.010\% | 0.010\% | 0.4 | 0.4 | 0\% | 0\% |
| 40 | 0 | 4,656 | 0.00000 | 0.010\% | 0.010\% | 0.5 | 0.5 | 0\% | 0\% |
| 41 | 0 | 4,977 | 0.00000 | 0.010\% | 0.010\% | 0.5 | 0.5 | 0\% | 0\% |
| 42 | 0 | 5,131 | 0.00000 | 0.010\% | 0.010\% | 0.5 | 0.5 | 0\% | 0\% |
| 43 | 0 | 5,037 | 0.00000 | 0.010\% | 0.010\% | 0.5 | 0.5 | 0\% | 0\% |
| 44 | 0 | 4,817 | 0.00000 | 0.010\% | 0.010\% | 0.5 | 0.5 | 0\% | 0\% |
| 45 | 0 | 4,497 | 0.00000 | 0.010\% | 0.010\% | 0.4 | 0.4 | 0\% | 0\% |
| 46 | 0 | 4,190 | 0.00000 | 0.010\% | 0.010\% | 0.4 | 0.4 | 0\% | 0\% |
| 47 | 0 | 3,839 | 0.00000 | 0.010\% | 0.010\% | 0.4 | 0.4 | 0\% | 0\% |
| 48 | 0 | 3,442 | 0.00000 | 0.010\% | 0.010\% | 0.3 | 0.3 | 0\% | 0\% |
| 49 | 0 | 3,036 | 0.00000 | 0.010\% | 0.010\% | 0.3 | 0.3 | 0\% | 0\% |
| 50 | 0 | 2,613 | 0.00000 | 0.010\% | 0.010\% | 0.3 | 0.3 | 0\% | 0\% |
| 51 | 0 | 2,252 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 52 | 0 | 1,874 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 53 | 0 | 1,537 | 0.00000 | 0.010\% | 0.010\% | 0.2 | 0.2 | 0\% | 0\% |
| 54 | 0 | 1,221 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 55 | 0 | 980 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 56 | 0 | 765 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 57 | 0 | 592 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 58 | 0 | 439 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 59 | 0 | 318 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 60 | 0 | 220 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 61 | 0 | 135 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 62 | 0 | 91 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 0.010\% | 0.010\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.010\% | 0.010\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.010\% | 0.010\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.010\% | 0.010\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.010\% | 0.010\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.010\% | 0.010\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.010\% | 0.010\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 |  |  | 0.000\% | 0 | 0 | 0\% | 0\% |
| Total | 0 | 89,006 |  |  |  | 8.9 | 8.9 | 0\% | 0\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS ACCIDENTAL MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

|  | TABLE 9A GROUPED |  |  | $\begin{array}{lcl} & \text { 10-YEAR PERIOD ENDING 6/30/2013 } \\ \text { Assumed Probability } & \text { Expected Deaths } & \\ \text { Actual/Expected }\end{array}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total Exposed | $\begin{gathered} \text { Actual Rate } \\ (2) /(3) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Expected } \\ (7) /(3) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { Proposed } \\ (8) /(3) \\ \hline \end{gathered}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 600 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 25-29 | 0 | 5,451 | 0.00000 | 0.010\% | 0.010\% | 0.5 | 0.5 | 0\% | 0\% |
| 30-34 | 0 | 9,782 | 0.00000 | 0.010\% | 0.010\% | 1.0 | 1.0 | 0\% | 0\% |
| 35-39 | 0 | 16,514 | 0.00000 | 0.010\% | 0.010\% | 1.7 | 1.7 | 0\% | 0\% |
| 40-44 | 0 | 24,618 | 0.00000 | 0.010\% | 0.010\% | 2.5 | 2.5 | 0\% | 0\% |
| 45-49 | 0 | 19,004 | 0.00000 | 0.010\% | 0.010\% | 1.9 | 1.9 | 0\% | 0\% |
| 50-54 | 0 | 9,497 | 0.00000 | 0.010\% | 0.010\% | 0.9 | 0.9 | 0\% | 0\% |
| 55-59 | 0 | 3,094 | 0.00000 | 0.010\% | 0.010\% | 0.3 | 0.3 | 0\% | 0\% |
| 60-64 | 0 | 446 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 0 | 89,006 |  |  |  | 8.9 | 8.9 | 0\% | 0\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS ACCIDENTAL MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| $\begin{aligned} & \text { Plan } \\ & \text { Year } \end{aligned}$ | TABLE 9B |  |  | 10-YEAR PER | Mortality Rate |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending June 30, | Life Years <br> Exposed | Actual <br> Deaths | Expected <br> Deaths | Actual / Expected | $\begin{aligned} & \text { Actual } \\ & (3) /(2) \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 9,738 | 0 | 0.9 | 0\% | 0.000\% | 0.009\% |
| 2005 | 9,342 | 0 | 0.9 | 0\% | 0.000\% | 0.009\% |
| 2006 | 9,141 | 0 | 0.9 | 0\% | 0.000\% | 0.009\% |
| 2007 | 9,186 | 0 | 0.9 | 0\% | 0.000\% | 0.009\% |
| 2008 | 9,012 | 0 | 0.9 | 0\% | 0.000\% | 0.009\% |
| 2009 | 8,848 | 0 | 0.8 | 0\% | 0.000\% | 0.009\% |
| 2010 | 8,887 | 0 | 0.8 | 0\% | 0.000\% | 0.009\% |
| 2011 | 8,551 | 0 | 0.8 | 0\% | 0.000\% | 0.010\% |
| 2012 | 8,167 | 0 | 0.8 | 0\% | 0.000\% | 0.010\% |
| 2013 | 8,134 | 0 | 0.8 | 0\% | 0.000\% | 0.009\% |
| Total | 89,006 | 0 | 8.4 | 0\% | 0.000\% | 0.009\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN

| Age | TABLE 10A |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 24 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 27 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 28 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 29 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 30 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 31 | 0 | 7 | 0.0000 | 0.12\% | 0.12\% | 0.0 | 0.0 | 0\% | 0\% |
| 32 | 0 | 20 | 0.0000 | 0.14\% | 0.14\% | 0.0 | 0.0 | 0\% | 0\% |
| 33 | 0 | 58 | 0.0000 | 0.16\% | 0.16\% | 0.1 | 0.1 | 0\% | 0\% |
| 34 | 1 | 102 | 0.0098 | 0.18\% | 0.18\% | 0.2 | 0.2 | 545\% | 545\% |
| 35 | 0 | 157 | 0.0000 | 0.20\% | 0.20\% | 0.3 | 0.3 | 0\% | 0\% |
| 36 | 0 | 195 | 0.0000 | 0.22\% | 0.22\% | 0.4 | 0.4 | 0\% | 0\% |
| 37 | 0 | 228 | 0.0000 | 0.24\% | 0.24\% | 0.5 | 0.5 | 0\% | 0\% |
| 38 | 0 | 301 | 0.0000 | 0.26\% | 0.26\% | 0.8 | 0.8 | 0\% | 0\% |
| 39 | 0 | 403 | 0.0000 | 0.28\% | 0.28\% | 1.1 | 1.1 | 0\% | 0\% |
| 40 | 1 | 563 | 0.0018 | 0.30\% | 0.30\% | 1.7 | 1.7 | 59\% | 59\% |
| 41 | 0 | 706 | 0.0000 | 0.32\% | 0.32\% | 2.3 | 2.3 | 0\% | 0\% |
| 42 | 1 | 806 | 0.0012 | 0.34\% | 0.34\% | 2.7 | 2.7 | 36\% | 36\% |
| 43 | 0 | 896 | 0.0000 | 0.36\% | 0.36\% | 3.2 | 3.2 | 0\% | 0\% |
| 44 | 0 | 932 | 0.0000 | 0.38\% | 0.38\% | 3.5 | 3.5 | 0\% | 0\% |
| 45 | 1 | 891 | 0.0011 | 0.40\% | 0.40\% | 3.6 | 3.6 | 28\% | 28\% |
| 46 | 0 | 840 | 0.0000 | 0.42\% | 0.42\% | 3.5 | 3.5 | 0\% | 0\% |
| 47 | 1 | 796 | 0.0013 | 0.44\% | 0.44\% | 3.5 | 3.5 | 29\% | 29\% |
| 48 | 1 | 715 | 0.0014 | 0.46\% | 0.46\% | 3.3 | 3.3 | 30\% | 30\% |
| 49 | 2 | 635 | 0.0031 | 0.48\% | 0.48\% | 3.0 | 3.0 | 66\% | 66\% |
| 50 | 0 | 568 | 0.0000 | 0.50\% | 0.50\% | 2.8 | 2.8 | 0\% | 0\% |
| 51 | 2 | 495 | 0.0040 | 0.52\% | 0.52\% | 2.6 | 2.6 | 78\% | 78\% |
| 52 | 3 | 418 | 0.0072 | 0.54\% | 0.54\% | 2.3 | 2.3 | 133\% | 133\% |
| 53 | 0 | 350 | 0.0000 | 0.56\% | 0.56\% | 2.0 | 2.0 | 0\% | 0\% |
| 54 | 1 | 314 | 0.0032 | 0.58\% | 0.58\% | 1.8 | 1.8 | 55\% | 55\% |
| 55 | 0 | 259 | 0.0000 | 0.60\% | 0.60\% | 1.6 | 1.6 | 0\% | 0\% |
| 56 | 0 | 224 | 0.0000 | 0.62\% | 0.62\% | 1.4 | 1.4 | 0\% | 0\% |
| 57 | 0 | 188 | 0.0000 | 0.64\% | 0.64\% | 1.2 | 1.2 | 0\% | 0\% |
| 58 | 0 | 129 | 0.0000 | 0.66\% | 0.66\% | 0.9 | 0.9 | 0\% | 0\% |
| 59 | 0 | 88 | 0.0000 | 0.68\% | 0.68\% | 0.6 | 0.6 | 0\% | 0\% |
| 60 | 0 | 61 | 0.0000 | 0.70\% | 0.70\% | 0.4 | 0.4 | 0\% | 0\% |
| 61 | 0 | 33 | 0.0000 | 0.72\% | 0.72\% | 0.2 | 0.2 | 0\% | 0\% |
| 62 | 0 | 21 | 0.0000 | 0.74\% | 0.74\% | 0.2 | 0.2 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 14 | 12,399 |  |  |  | 51.8 | 51.8 | 27\% | 27\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS women

|  | TABLE 10B |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) /(3) } \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 24 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 27 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 28 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 29 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 30 | 0 | 3 | 0.0000 | 0.10\% | 0.10\% | 0.0 | 0.0 | 0\% | 0\% |
| 31 | 0 | 4 | 0.0000 | 0.12\% | 0.12\% | 0.0 | 0.0 | 0\% | 0\% |
| 32 | 0 | 39 | 0.0000 | 0.14\% | 0.14\% | 0.1 | 0.1 | 0\% | 0\% |
| 33 | 0 | 78 | 0.0000 | 0.16\% | 0.16\% | 0.1 | 0.1 | 0\% | 0\% |
| 34 | 0 | 108 | 0.0000 | 0.18\% | 0.18\% | 0.2 | 0.2 | 0\% | 0\% |
| 35 | 0 | 128 | 0.0000 | 0.20\% | 0.20\% | 0.3 | 0.3 | 0\% | 0\% |
| 36 | 1 | 179 | 0.0056 | 0.22\% | 0.22\% | 0.4 | 0.4 | 254\% | 254\% |
| 37 | 1 | 241 | 0.0041 | 0.24\% | 0.24\% | 0.6 | 0.6 | 173\% | 173\% |
| 38 | 1 | 327 | 0.0031 | 0.26\% | 0.26\% | 0.9 | 0.9 | 118\% | 118\% |
| 39 | 1 | 421 | 0.0024 | 0.28\% | 0.28\% | 1.2 | 1.2 | 85\% | 85\% |
| 40 | 1 | 511 | 0.0020 | 0.30\% | 0.30\% | 1.5 | 1.5 | 65\% | 65\% |
| 41 | 0 | 586 | 0.0000 | 0.32\% | 0.32\% | 1.9 | 1.9 | 0\% | 0\% |
| 42 | 1 | 657 | 0.0015 | 0.34\% | 0.34\% | 2.2 | 2.2 | 45\% | 45\% |
| 43 | 2 | 675 | 0.0030 | 0.36\% | 0.36\% | 2.4 | 2.4 | 82\% | 82\% |
| 44 | 5 | 731 | 0.0068 | 0.38\% | 0.38\% | 2.8 | 2.8 | 180\% | 180\% |
| 45 | 3 | 709 | 0.0042 | 0.40\% | 0.40\% | 2.8 | 2.8 | 106\% | 106\% |
| 46 | 2 | 656 | 0.0030 | 0.42\% | 0.42\% | 2.8 | 2.8 | 73\% | 73\% |
| 47 | 1 | 591 | 0.0017 | 0.44\% | 0.44\% | 2.6 | 2.6 | 38\% | 38\% |
| 48 | 2 | 516 | 0.0039 | 0.46\% | 0.46\% | 2.4 | 2.4 | 84\% | 84\% |
| 49 | 2 | 449 | 0.0045 | 0.48\% | 0.48\% | 2.2 | 2.2 | 93\% | 93\% |
| 50 | 1 | 384 | 0.0026 | 0.50\% | 0.50\% | 1.9 | 1.9 | 52\% | 52\% |
| 51 | 0 | 357 | 0.0000 | 0.52\% | 0.52\% | 1.9 | 1.9 | 0\% | 0\% |
| 52 | 2 | 294 | 0.0068 | 0.54\% | 0.54\% | 1.6 | 1.6 | 126\% | 126\% |
| 53 | 0 | 253 | 0.0000 | 0.56\% | 0.56\% | 1.4 | 1.4 | 0\% | 0\% |
| 54 | 0 | 203 | 0.0000 | 0.58\% | 0.58\% | 1.2 | 1.2 | 0\% | 0\% |
| 55 | 0 | 155 | 0.0000 | 0.60\% | 0.60\% | 0.9 | 0.9 | 0\% | 0\% |
| 56 | 1 | 124 | 0.0081 | 0.62\% | 0.62\% | 0.8 | 0.8 | 130\% | 130\% |
| 57 | 1 | 76 | 0.0132 | 0.64\% | 0.64\% | 0.5 | 0.5 | 206\% | 206\% |
| 58 | 1 | 57 | 0.0175 | 0.66\% | 0.66\% | 0.4 | 0.4 | 266\% | 266\% |
| 59 | 0 | 37 | 0.0000 | 0.68\% | 0.68\% | 0.3 | 0.3 | 0\% | 0\% |
| 60 | 0 | 27 | 0.0000 | 0.70\% | 0.70\% | 0.2 | 0.2 | 0\% | 0\% |
| 61 | 0 | 15 | 0.0000 | 0.72\% | 0.72\% | 0.1 | 0.1 | 0\% | 0\% |
| 62 | 0 | 7 | 0.0000 | 0.74\% | 0.74\% | 0.1 | 0.1 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 29 | 9,598 |  |  |  | 38.3 | 38.3 | 76\% | 76\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS

MEN AND WOMEN

|  | TABLE 10C |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2)/(3) } \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 24 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 27 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 28 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 29 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 30 | 0 | 3 | 0.0000 | 0.10\% | 0.10\% | 0.0 | 0.0 | 0\% | 0\% |
| 31 | 0 | 11 | 0.0000 | 0.12\% | 0.12\% | 0.0 | 0.0 | 0\% | 0\% |
| 32 | 0 | 59 | 0.0000 | 0.14\% | 0.14\% | 0.1 | 0.1 | 0\% | 0\% |
| 33 | 0 | 136 | 0.0000 | 0.16\% | 0.16\% | 0.2 | 0.2 | 0\% | 0\% |
| 34 | 1 | 210 | 0.0048 | 0.18\% | 0.18\% | 0.4 | 0.4 | 265\% | 265\% |
| 35 | 0 | 285 | 0.0000 | 0.20\% | 0.20\% | 0.6 | 0.6 | 0\% | 0\% |
| 36 | 1 | 374 | 0.0027 | 0.22\% | 0.22\% | 0.8 | 0.8 | 122\% | 122\% |
| 37 | 1 | 469 | 0.0021 | 0.24\% | 0.24\% | 1.1 | 1.1 | 89\% | 89\% |
| 38 | 1 | 628 | 0.0016 | 0.26\% | 0.26\% | 1.6 | 1.6 | 61\% | 61\% |
| 39 | 1 | 824 | 0.0012 | 0.28\% | 0.28\% | 2.3 | 2.3 | 43\% | 43\% |
| 40 | 2 | 1,074 | 0.0019 | 0.30\% | 0.30\% | 3.2 | 3.2 | 62\% | 62\% |
| 41 | 0 | 1,292 | 0.0000 | 0.32\% | 0.32\% | 4.1 | 4.1 | 0\% | 0\% |
| 42 | 2 | 1,463 | 0.0014 | 0.34\% | 0.34\% | 5.0 | 5.0 | 40\% | 40\% |
| 43 | 2 | 1,571 | 0.0013 | 0.36\% | 0.36\% | 5.7 | 5.7 | 35\% | 35\% |
| 44 | 5 | 1,663 | 0.0030 | 0.38\% | 0.38\% | 6.3 | 6.3 | 79\% | 79\% |
| 45 | 4 | 1,600 | 0.0025 | 0.40\% | 0.40\% | 6.4 | 6.4 | 63\% | 63\% |
| 46 | 2 | 1,496 | 0.0013 | 0.42\% | 0.42\% | 6.3 | 6.3 | 32\% | 32\% |
| 47 | 2 | 1,387 | 0.0014 | 0.44\% | 0.44\% | 6.1 | 6.1 | 33\% | 33\% |
| 48 | 3 | 1,231 | 0.0024 | 0.46\% | 0.46\% | 5.7 | 5.7 | 53\% | 53\% |
| 49 | 4 | 1,084 | 0.0037 | 0.48\% | 0.48\% | 5.2 | 5.2 | 77\% | 77\% |
| 50 | 1 | 952 | 0.0011 | 0.50\% | 0.50\% | 4.8 | 4.8 | 21\% | 21\% |
| 51 | 2 | 852 | 0.0023 | 0.52\% | 0.52\% | 4.4 | 4.4 | 45\% | 45\% |
| 52 | 5 | 712 | 0.0070 | 0.54\% | 0.54\% | 3.8 | 3.8 | 130\% | 130\% |
| 53 | 0 | 603 | 0.0000 | 0.56\% | 0.56\% | 3.4 | 3.4 | 0\% | 0\% |
| 54 | 1 | 517 | 0.0019 | 0.58\% | 0.58\% | 3.0 | 3.0 | 33\% | 33\% |
| 55 | 0 | 414 | 0.0000 | 0.60\% | 0.60\% | 2.5 | 2.5 | 0\% | 0\% |
| 56 | 1 | 348 | 0.0029 | 0.62\% | 0.62\% | 2.2 | 2.2 | 46\% | 46\% |
| 57 | 1 | 264 | 0.0038 | 0.64\% | 0.64\% | 1.7 | 1.7 | 59\% | 59\% |
| 58 | 1 | 186 | 0.0054 | 0.66\% | 0.66\% | 1.2 | 1.2 | 81\% | 81\% |
| 59 | 0 | 125 | 0.0000 | 0.68\% | 0.68\% | 0.9 | 0.9 | 0\% | 0\% |
| 60 | 0 | 88 | 0.0000 | 0.70\% | 0.70\% | 0.6 | 0.6 | 0\% | 0\% |
| 61 | 0 | 48 | 0.0000 | 0.72\% | 0.72\% | 0.3 | 0.3 | 0\% | 0\% |
| 62 | 0 | 28 | 0.0000 | 0.74\% | 0.74\% | 0.2 | 0.2 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 43 | 21,997 |  |  |  | 90.1 | 90.1 | 48\% | 48\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS

## ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS

 MEN|  | TABLE 10A GROUPED |  |  | Assumed Probability $\quad \begin{gathered}\text { 4-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered} \quad$ Actual/Expected |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | Actual Rate $(2) /(3)$ | Expected <br> (7) / (3) | Proposed $(8) /(3)$ | Expected | Proposed | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 25-29 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 30-34 | 1 | 187 | 0.0053 | 0.17\% | 0.17\% | 0.3 | 0.3 | 320\% | 320\% |
| 35-39 | 0 | 1,284 | 0.0000 | 0.25\% | 0.25\% | 3.2 | 3.2 | 0\% | 0\% |
| 40-44 | 2 | 3,903 | 0.0005 | 0.34\% | 0.34\% | 13.5 | 13.5 | 15\% | 15\% |
| 45-49 | 5 | 3,877 | 0.0013 | 0.44\% | 0.44\% | 16.9 | 16.9 | 30\% | 30\% |
| 50-54 | 6 | 2,145 | 0.0028 | 0.53\% | 0.53\% | 11.5 | 11.5 | 52\% | 52\% |
| 55-59 | 0 | 888 | 0.0000 | 0.63\% | 0.63\% | 5.6 | 5.6 | 0\% | 0\% |
| 60-64 | 0 | 115 | 0.0000 | 0.71\% | 0.71\% | 0.8 | 0.8 | 0\% | 0\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 14 | 12,399 |  |  |  | 51.8 | 51.8 | 27\% | 27\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS

## ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS

## WOMEN

|  | TABLE 10B GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | Actual Rate $(2) /(3)$ | Expected <br> (7) / (3) | Proposed $(8) /(3)$ | Expected | Proposed | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 25-29 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 30-34 | 0 | 232 | 0.0000 | 0.16\% | 0.16\% | 0.4 | 0.4 | 0\% | 0\% |
| 35-39 | 4 | 1,296 | 0.0031 | 0.25\% | 0.25\% | 3.3 | 3.3 | 123\% | 123\% |
| 40-44 | 9 | 3,160 | 0.0028 | 0.34\% | 0.34\% | 10.8 | 10.8 | 83\% | 83\% |
| 45-49 | 10 | 2,921 | 0.0034 | 0.44\% | 0.44\% | 12.7 | 12.7 | 79\% | 79\% |
| 50-54 | 3 | 1,491 | 0.0020 | 0.53\% | 0.53\% | 8.0 | 8.0 | 38\% | 38\% |
| 55-59 | 3 | 449 | 0.0067 | 0.63\% | 0.63\% | 2.8 | 2.8 | 107\% | 107\% |
| 60-64 | 0 | 49 | 0.0000 | 0.71\% | 0.71\% | 0.3 | 0.3 | 0\% | 0\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 29 | 9,598 |  |  |  | 38.3 | 38.3 | 76\% | 76\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS

## ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS

 MEN AND WOMEN|  | TABLE 10C GROUPED |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2011$\begin{aligned} & \text { Expected Disabilities }\end{aligned} \quad$ Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 25-29 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 30-34 | 1 | 419 | 0.0024 | 0.17\% | 0.17\% | 0.7 | 0.7 | 144\% | 144\% |
| 35-39 | 4 | 2,580 | 0.0016 | 0.25\% | 0.25\% | 6.5 | 6.5 | 62\% | 62\% |
| 40-44 | 11 | 7,063 | 0.0016 | 0.34\% | 0.34\% | 24.3 | 24.3 | 45\% | 45\% |
| 45-49 | 15 | 6,798 | 0.0022 | 0.44\% | 0.44\% | 29.7 | 29.7 | 51\% | 51\% |
| 50-54 | 9 | 3,636 | 0.0025 | 0.53\% | 0.53\% | 19.4 | 19.4 | 46\% | 46\% |
| 55-59 | 3 | 1,337 | 0.0022 | 0.63\% | 0.63\% | 8.4 | 8.4 | 36\% | 36\% |
| 60-64 | 0 | 164 | 0.0000 | 0.71\% | 0.71\% | 1.2 | 1.2 | 0\% | 0\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 43 | 21,997 |  |  |  | 90.1 | 90.1 | 48\% | 48\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN

|  | TABLE 10A |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) /(3) } \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 24 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 27 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 28 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 29 | 0 | 1 | 0.0000 | 0.10\% | 0.10\% | 0.0 | 0.0 | 0\% | 0\% |
| 30 | 0 | 5 | 0.0000 | 0.10\% | 0.10\% | 0.0 | 0.0 | 0\% | 0\% |
| 31 | 0 | 20 | 0.0000 | 0.12\% | 0.12\% | 0.0 | 0.0 | 0\% | 0\% |
| 32 | 0 | 50 | 0.0000 | 0.14\% | 0.14\% | 0.1 | 0.1 | 0\% | 0\% |
| 33 | 0 | 120 | 0.0000 | 0.16\% | 0.16\% | 0.2 | 0.2 | 0\% | 0\% |
| 34 | 1 | 211 | 0.0047 | 0.18\% | 0.18\% | 0.4 | 0.4 | 263\% | 263\% |
| 35 | 0 | 366 | 0.0000 | 0.20\% | 0.20\% | 0.7 | 0.7 | 0\% | 0\% |
| 36 | 0 | 578 | 0.0000 | 0.22\% | 0.22\% | 1.3 | 1.3 | 0\% | 0\% |
| 37 | 1 | 820 | 0.0012 | 0.24\% | 0.24\% | 2.0 | 2.0 | 51\% | 51\% |
| 38 | 2 | 1,110 | 0.0018 | 0.26\% | 0.26\% | 2.9 | 2.9 | 69\% | 69\% |
| 39 | 1 | 1,441 | 0.0007 | 0.28\% | 0.28\% | 4.0 | 4.0 | 25\% | 25\% |
| 40 | 5 | 1,809 | 0.0028 | 0.30\% | 0.30\% | 5.4 | 5.4 | 92\% | 92\% |
| 41 | 2 | 2,028 | 0.0010 | 0.32\% | 0.32\% | 6.5 | 6.5 | 31\% | 31\% |
| 42 | 6 | 2,156 | 0.0028 | 0.34\% | 0.34\% | 7.3 | 7.3 | 82\% | 82\% |
| 43 | 3 | 2,154 | 0.0014 | 0.36\% | 0.36\% | 7.8 | 7.8 | 39\% | 39\% |
| 44 | 5 | 2,032 | 0.0025 | 0.38\% | 0.38\% | 7.7 | 7.7 | 65\% | 65\% |
| 45 | 3 | 1,895 | 0.0016 | 0.40\% | 0.40\% | 7.6 | 7.6 | 40\% | 40\% |
| 46 | 1 | 1,750 | 0.0006 | 0.42\% | 0.42\% | 7.4 | 7.4 | 14\% | 14\% |
| 47 | 4 | 1,599 | 0.0025 | 0.44\% | 0.44\% | 7.0 | 7.0 | 57\% | 57\% |
| 48 | 2 | 1,421 | 0.0014 | 0.46\% | 0.46\% | 6.5 | 6.5 | 31\% | 31\% |
| 49 | 2 | 1,262 | 0.0016 | 0.48\% | 0.48\% | 6.1 | 6.1 | 33\% | 33\% |
| 50 | 1 | 1,101 | 0.0009 | 0.50\% | 0.50\% | 5.5 | 5.5 | 18\% | 18\% |
| 51 | 3 | 934 | 0.0032 | 0.52\% | 0.52\% | 4.9 | 4.9 | 62\% | 62\% |
| 52 | 5 | 796 | 0.0063 | 0.54\% | 0.54\% | 4.3 | 4.3 | 116\% | 116\% |
| 53 | 1 | 653 | 0.0015 | 0.56\% | 0.56\% | 3.7 | 3.7 | 27\% | 27\% |
| 54 | 1 | 520 | 0.0019 | 0.58\% | 0.58\% | 3.0 | 3.0 | 33\% | 33\% |
| 55 | 0 | 406 | 0.0000 | 0.60\% | 0.60\% | 2.4 | 2.4 | 0\% | 0\% |
| 56 | 1 | 318 | 0.0031 | 0.62\% | 0.62\% | 2.0 | 2.0 | 51\% | 51\% |
| 57 | 0 | 254 | 0.0000 | 0.64\% | 0.64\% | 1.6 | 1.6 | 0\% | 0\% |
| 58 | 0 | 173 | 0.0000 | 0.66\% | 0.66\% | 1.1 | 1.1 | 0\% | 0\% |
| 59 | 1 | 116 | 0.0086 | 0.68\% | 0.68\% | 0.8 | 0.8 | 127\% | 127\% |
| 60 | 0 | 77 | 0.0000 | 0.70\% | 0.70\% | 0.5 | 0.5 | 0\% | 0\% |
| 61 | 0 | 39 | 0.0000 | 0.72\% | 0.72\% | 0.3 | 0.3 | 0\% | 0\% |
| 62 | 0 | 24 | 0.0000 | 0.74\% | 0.74\% | 0.2 | 0.2 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 51 | 28,239 |  |  |  | 111.1 | 111.1 | 46\% | 46\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS women

|  | TABLE 10B |  |  | Assumed | bability | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 24 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 27 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 28 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 29 | 0 | 0 | N/A | 0.10\% | 0.10\% | 0 | 0 | 0\% | 0\% |
| 30 | 0 | 3 | 0.0000 | 0.10\% | 0.10\% | 0.0 | 0.0 | 0\% | 0\% |
| 31 | 0 | 16 | 0.0000 | 0.12\% | 0.12\% | 0.0 | 0.0 | 0\% | 0\% |
| 32 | 0 | 62 | 0.0000 | 0.14\% | 0.14\% | 0.1 | 0.1 | 0\% | 0\% |
| 33 | 1 | 117 | 0.0085 | 0.16\% | 0.16\% | 0.2 | 0.2 | 534\% | 534\% |
| 34 | 0 | 205 | 0.0000 | 0.18\% | 0.18\% | 0.4 | 0.4 | 0\% | 0\% |
| 35 | 0 | 324 | 0.0000 | 0.20\% | 0.20\% | 0.6 | 0.6 | 0\% | 0\% |
| 36 | 3 | 503 | 0.0060 | 0.22\% | 0.22\% | 1.1 | 1.1 | 271\% | 271\% |
| 37 | 2 | 674 | 0.0030 | 0.24\% | 0.24\% | 1.6 | 1.6 | 124\% | 124\% |
| 38 | 5 | 887 | 0.0056 | 0.26\% | 0.26\% | 2.3 | 2.3 | 217\% | 217\% |
| 39 | 6 | 1,075 | 0.0056 | 0.28\% | 0.28\% | 3.0 | 3.0 | 199\% | 199\% |
| 40 | 6 | 1,295 | 0.0046 | 0.30\% | 0.30\% | 3.9 | 3.9 | 154\% | 154\% |
| 41 | 1 | 1,429 | 0.0007 | 0.32\% | 0.32\% | 4.6 | 4.6 | 22\% | 22\% |
| 42 | 4 | 1,513 | 0.0026 | 0.34\% | 0.34\% | 5.1 | 5.1 | 78\% | 78\% |
| 43 | 4 | 1,480 | 0.0027 | 0.36\% | 0.36\% | 5.3 | 5.3 | 75\% | 75\% |
| 44 | 7 | 1,453 | 0.0048 | 0.38\% | 0.38\% | 5.5 | 5.5 | 127\% | 127\% |
| 45 | 4 | 1,339 | 0.0030 | 0.40\% | 0.40\% | 5.4 | 5.4 | 75\% | 75\% |
| 46 | 8 | 1,193 | 0.0067 | 0.42\% | 0.42\% | 5.0 | 5.0 | 160\% | 160\% |
| 47 | 1 | 1,089 | 0.0009 | 0.44\% | 0.44\% | 4.8 | 4.8 | 21\% | 21\% |
| 48 | 3 | 938 | 0.0032 | 0.46\% | 0.46\% | 4.3 | 4.3 | 70\% | 70\% |
| 49 | 3 | 838 | 0.0036 | 0.48\% | 0.48\% | 4.0 | 4.0 | 75\% | 75\% |
| 50 | 1 | 726 | 0.0014 | 0.50\% | 0.50\% | 3.6 | 3.6 | 28\% | 28\% |
| 51 | 5 | 640 | 0.0078 | 0.52\% | 0.52\% | 3.3 | 3.3 | 150\% | 150\% |
| 52 | 3 | 512 | 0.0059 | 0.54\% | 0.54\% | 2.8 | 2.8 | 109\% | 109\% |
| 53 | 2 | 402 | 0.0050 | 0.56\% | 0.56\% | 2.3 | 2.3 | 89\% | 89\% |
| 54 | 1 | 305 | 0.0033 | 0.58\% | 0.58\% | 1.8 | 1.8 | 57\% | 57\% |
| 55 | 0 | 216 | 0.0000 | 0.60\% | 0.60\% | 1.3 | 1.3 | 0\% | 0\% |
| 56 | 1 | 167 | 0.0060 | 0.62\% | 0.62\% | 1.0 | 1.0 | 97\% | 97\% |
| 57 | 1 | 106 | 0.0094 | 0.64\% | 0.64\% | 0.7 | 0.7 | 147\% | 147\% |
| 58 | 1 | 68 | 0.0147 | 0.66\% | 0.66\% | 0.4 | 0.4 | 223\% | 223\% |
| 59 | 1 | 43 | 0.0233 | 0.68\% | 0.68\% | 0.3 | 0.3 | 342\% | 342\% |
| 60 | 0 | 32 | 0.0000 | 0.70\% | 0.70\% | 0.2 | 0.2 | 0\% | 0\% |
| 61 | 0 | 19 | 0.0000 | 0.72\% | 0.72\% | 0.1 | 0.1 | 0\% | 0\% |
| 62 | 0 | 10 | 0.0000 | 0.74\% | 0.74\% | 0.1 | 0.1 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 74 | 19,679 |  |  |  | 75.2 | 75.2 | 98\% | 98\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

|  | TABLE 10C |  |  | Assumed | bability | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 24 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 27 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 28 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 29 | 0 | 1 | 0.0000 | 0.10\% | 0.10\% | 0.0 | 0.0 | 0\% | 0\% |
| 30 | 0 | 8 | 0.0000 | 0.10\% | 0.10\% | 0.0 | 0.0 | 0\% | 0\% |
| 31 | 0 | 36 | 0.0000 | 0.12\% | 0.12\% | 0.0 | 0.0 | 0\% | 0\% |
| 32 | 0 | 112 | 0.0000 | 0.14\% | 0.14\% | 0.2 | 0.2 | 0\% | 0\% |
| 33 | 1 | 237 | 0.0042 | 0.16\% | 0.16\% | 0.4 | 0.4 | 264\% | 264\% |
| 34 | 1 | 416 | 0.0024 | 0.18\% | 0.18\% | 0.7 | 0.7 | 134\% | 134\% |
| 35 | 0 | 690 | 0.0000 | 0.20\% | 0.20\% | 1.4 | 1.4 | 0\% | 0\% |
| 36 | 3 | 1,081 | 0.0028 | 0.22\% | 0.22\% | 2.4 | 2.4 | 126\% | 126\% |
| 37 | 3 | 1,494 | 0.0020 | 0.24\% | 0.24\% | 3.6 | 3.6 | 84\% | 84\% |
| 38 | 7 | 1,997 | 0.0035 | 0.26\% | 0.26\% | 5.2 | 5.2 | 135\% | 135\% |
| 39 | 7 | 2,516 | 0.0028 | 0.28\% | 0.28\% | 7.0 | 7.0 | 99\% | 99\% |
| 40 | 11 | 3,104 | 0.0035 | 0.30\% | 0.30\% | 9.3 | 9.3 | 118\% | 118\% |
| 41 | 3 | 3,457 | 0.0009 | 0.32\% | 0.32\% | 11.1 | 11.1 | 27\% | 27\% |
| 42 | 10 | 3,669 | 0.0027 | 0.34\% | 0.34\% | 12.5 | 12.5 | 80\% | 80\% |
| 43 | 7 | 3,634 | 0.0019 | 0.36\% | 0.36\% | 13.1 | 13.1 | 54\% | 54\% |
| 44 | 12 | 3,485 | 0.0034 | 0.38\% | 0.38\% | 13.2 | 13.2 | 91\% | 91\% |
| 45 | 7 | 3,234 | 0.0022 | 0.40\% | 0.40\% | 12.9 | 12.9 | 54\% | 54\% |
| 46 | 9 | 2,943 | 0.0031 | 0.42\% | 0.42\% | 12.4 | 12.4 | 73\% | 73\% |
| 47 | 5 | 2,688 | 0.0019 | 0.44\% | 0.44\% | 11.8 | 11.8 | 42\% | 42\% |
| 48 | 5 | 2,359 | 0.0021 | 0.46\% | 0.46\% | 10.9 | 10.9 | 46\% | 46\% |
| 49 | 5 | 2,100 | 0.0024 | 0.48\% | 0.48\% | 10.1 | 10.1 | 50\% | 50\% |
| 50 | 2 | 1,827 | 0.0011 | 0.50\% | 0.50\% | 9.1 | 9.1 | 22\% | 22\% |
| 51 | 8 | 1,574 | 0.0051 | 0.52\% | 0.52\% | 8.2 | 8.2 | 98\% | 98\% |
| 52 | 8 | 1,308 | 0.0061 | 0.54\% | 0.54\% | 7.1 | 7.1 | 113\% | 113\% |
| 53 | 3 | 1,055 | 0.0028 | 0.56\% | 0.56\% | 5.9 | 5.9 | 51\% | 51\% |
| 54 | 2 | 825 | 0.0024 | 0.58\% | 0.58\% | 4.8 | 4.8 | 42\% | 42\% |
| 55 | 0 | 622 | 0.0000 | 0.60\% | 0.60\% | 3.7 | 3.7 | 0\% | 0\% |
| 56 | 2 | 485 | 0.0041 | 0.62\% | 0.62\% | 3.0 | 3.0 | 67\% | 67\% |
| 57 | 1 | 360 | 0.0028 | 0.64\% | 0.64\% | 2.3 | 2.3 | 43\% | 43\% |
| 58 | 1 | 241 | 0.0041 | 0.66\% | 0.66\% | 1.6 | 1.6 | 63\% | 63\% |
| 59 | 2 | 159 | 0.0126 | 0.68\% | 0.68\% | 1.1 | 1.1 | 185\% | 185\% |
| 60 | 0 | 109 | 0.0000 | 0.70\% | 0.70\% | 0.8 | 0.8 | 0\% | 0\% |
| 61 | 0 | 58 | 0.0000 | 0.72\% | 0.72\% | 0.4 | 0.4 | 0\% | 0\% |
| 62 | 0 | 34 | 0.0000 | 0.74\% | 0.74\% | 0.3 | 0.3 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 125 | 47,918 |  |  |  | 186.4 | 186.4 | 67\% | 67\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS

## ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS

 MEN|  | TABLE 10A GROUPED |  |  | A-YEAR PERIOD ENDING 6/30/2011 $\begin{gathered}\text { Expected Disabilities }\end{gathered}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | Actual Rate $(2) /(3)$ | Expected <br> (7) / (3) | Proposed (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 25-29 | 0 | 1 | 0.0000 | 0.10\% | 0.10\% | 0.0 | 0.0 | 0\% | 0\% |
| 30-34 | 1 | 406 | 0.0025 | 0.17\% | 0.17\% | 0.7 | 0.7 | 149\% | 149\% |
| 35-39 | 4 | 4,315 | 0.0009 | 0.25\% | 0.25\% | 10.9 | 10.9 | 37\% | 37\% |
| 40-44 | 21 | 10,179 | 0.0021 | 0.34\% | 0.34\% | 34.7 | 34.7 | 60\% | 60\% |
| 45-49 | 12 | 7,927 | 0.0015 | 0.44\% | 0.44\% | 34.6 | 34.6 | 35\% | 35\% |
| 50-54 | 11 | 4,004 | 0.0027 | 0.53\% | 0.53\% | 21.3 | 21.3 | 52\% | 52\% |
| 55-59 | 2 | 1,267 | 0.0016 | 0.63\% | 0.63\% | 8.0 | 8.0 | 25\% | 25\% |
| 60-64 | 0 | 140 | 0.0000 | 0.71\% | 0.71\% | 1.0 | 1.0 | 0\% | 0\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 51 | 28,239 |  |  |  | 111.1 | 111.1 | 46\% | 46\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS

## ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS

## WOMEN

| Age | TABLE 10B GROUPED |  |  | $\begin{array}{lcc} & \text { 8-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Assumed Probability } & \text { Expected Disabilities }\end{array}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2)/(3) } \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | Proposed (8) / (3) | Expected | Proposed | Expected $(2) /(7)$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 25-29 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 30-34 | 1 | 403 | 0.0025 | 0.17\% | 0.17\% | 0.7 | 0.7 | 150\% | 150\% |
| 35-39 | 16 | 3,463 | 0.0046 | 0.25\% | 0.25\% | 8.7 | 8.7 | 184\% | 184\% |
| 40-44 | 22 | 7,170 | 0.0031 | 0.34\% | 0.34\% | 24.5 | 24.5 | 90\% | 90\% |
| 45-49 | 19 | 5,397 | 0.0035 | 0.44\% | 0.44\% | 23.5 | 23.5 | 81\% | 81\% |
| 50-54 | 12 | 2,585 | 0.0046 | 0.53\% | 0.53\% | 13.7 | 13.7 | 87\% | 87\% |
| 55-59 | 4 | 600 | 0.0067 | 0.63\% | 0.63\% | 3.8 | 3.8 | 107\% | 107\% |
| 60-64 | 0 | 61 | 0.0000 | 0.71\% | 0.71\% | 0.4 | 0.4 | 0\% | 0\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 74 | 19,679 |  |  |  | 75.2 | 75.2 | 98\% | 98\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS

## ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS

 MEN AND WOMEN|  | TABLE 10C GROUPED |  |  | Assumed Probability |  | 8-YEAR PERIOD ENDING 6/30/2011Expected Disabilities |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $\text { (2) } /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 25-29 | 0 | 1 | 0.0000 | 0.10\% | 0.10\% | 0.0 | 0.0 | 0\% | 0\% |
| 30-34 | 2 | 809 | 0.0025 | 0.17\% | 0.17\% | 1.3 | 1.3 | 150\% | 150\% |
| 35-39 | 20 | 7,778 | 0.0026 | 0.25\% | 0.25\% | 19.6 | 19.6 | 102\% | 102\% |
| 40-44 | 43 | 17,349 | 0.0025 | 0.34\% | 0.34\% | 59.2 | 59.2 | 73\% | 73\% |
| 45-49 | 31 | 13,324 | 0.0023 | 0.44\% | 0.44\% | 58.1 | 58.1 | 53\% | 53\% |
| 50-54 | 23 | 6,589 | 0.0035 | 0.53\% | 0.53\% | 35.1 | 35.1 | 66\% | 66\% |
| 55-59 | 6 | 1,867 | 0.0032 | 0.63\% | 0.63\% | 11.7 | 11.7 | 51\% | 51\% |
| 60-64 | 0 | 201 | 0.0000 | 0.71\% | 0.71\% | 1.4 | 1.4 | 0\% | 0\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 125 | 47,918 |  |  |  | 186.4 | 186.4 | 67\% | 67\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Plan Year Ending June 30, | TABLE 10D$\begin{gathered} \text { Life Years } \\ \text { Exposed } \\ \hline \end{gathered}$ | Actual <br> Disabilities | Expected Disabilities | 10-YEAR PERIOD ENDING 6/30/2013 Disability Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / <br> Expected | $\begin{aligned} & \text { Actual } \\ & \text { (3) / (2) } \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 6,950 | 35 | 20.5 | 171\% | 0.50\% | 0.29\% |
| 2005 | 6,419 | 10 | 19.6 | 51\% | 0.16\% | 0.30\% |
| 2006 | 6,253 | 19 | 19.6 | 97\% | 0.30\% | 0.31\% |
| 2007 | 6,299 | 18 | 20.0 | 90\% | 0.29\% | 0.32\% |
| 2008 | 5,757 | 18 | 18.8 | 96\% | 0.31\% | 0.33\% |
| 2009 | 5,504 | 12 | 18.4 | 65\% | 0.22\% | 0.34\% |
| 2010 | 5,400 | 9 | 18.5 | 49\% | 0.17\% | 0.34\% |
| 2011 | 5,336 | 4 | 18.6 | 21\% | 0.07\% | 0.35\% |
| 2012 | 5,059 | 21 | 17.9 | 117\% | 0.42\% | 0.35\% |
| 2013 | 4,671 | 17 | 16.8 | 101\% | 0.36\% | 0.36\% |
| Total | 57,648 | 163 | 188.8 | 86\% | 0.28\% | 0.33\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS accidental disability experience of active members MEN

| Age | TABLE 11A |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ \text { (3) } \times(5) \\ \hline \end{gathered}$ | Proposed $(3) \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 1 | 0.0000 | 0.20\% | 0.23\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 4 | 0.0000 | 0.21\% | 0.24\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 23 | 0.0000 | 0.22\% | 0.25\% | 0.1 | 0.1 | 0\% | 0\% |
| 23 | 0 | 99 | 0.0000 | 0.23\% | 0.26\% | 0.2 | 0.3 | 0\% | 0\% |
| 24 | 0 | 160 | 0.0000 | 0.24\% | 0.28\% | 0.4 | 0.4 | 0\% | 0\% |
| 25 | 0 | 230 | 0.0000 | 0.25\% | 0.29\% | 0.6 | 0.7 | 0\% | 0\% |
| 26 | 0 | 278 | 0.0000 | 0.26\% | 0.30\% | 0.7 | 0.8 | 0\% | 0\% |
| 27 | 0 | 301 | 0.0000 | 0.27\% | 0.31\% | 0.8 | 0.9 | 0\% | 0\% |
| 28 | 0 | 345 | 0.0000 | 0.28\% | 0.32\% | 1.0 | 1.1 | 0\% | 0\% |
| 29 | 0 | 374 | 0.0000 | 0.29\% | 0.33\% | 1.1 | 1.2 | 0\% | 0\% |
| 30 | 1 | 365 | 0.0027 | 0.30\% | 0.35\% | 1.1 | 1.3 | 91\% | 79\% |
| 31 | 0 | 374 | 0.0000 | 0.31\% | 0.36\% | 1.2 | 1.3 | 0\% | 0\% |
| 32 | 2 | 392 | 0.0051 | 0.32\% | 0.37\% | 1.3 | 1.4 | 159\% | 139\% |
| 33 | 0 | 420 | 0.0000 | 0.33\% | 0.38\% | 1.4 | 1.6 | 0\% | 0\% |
| 34 | 0 | 448 | 0.0000 | 0.34\% | 0.39\% | 1.5 | 1.8 | 0\% | 0\% |
| 35 | 2 | 482 | 0.0041 | 0.35\% | 0.40\% | 1.7 | 1.9 | 119\% | 103\% |
| 36 | 5 | 516 | 0.0097 | 0.36\% | 0.41\% | 1.9 | 2.1 | 269\% | 234\% |
| 37 | 1 | 540 | 0.0019 | 0.37\% | 0.43\% | 2.0 | 2.3 | 50\% | 44\% |
| 38 | 5 | 605 | 0.0083 | 0.38\% | 0.44\% | 2.3 | 2.6 | 217\% | 189\% |
| 39 | 4 | 699 | 0.0057 | 0.39\% | 0.45\% | 2.7 | 3.1 | 147\% | 128\% |
| 40 | 4 | 844 | 0.0047 | 0.40\% | 0.46\% | 3.4 | 3.9 | 118\% | 103\% |
| 41 | 5 | 975 | 0.0051 | 0.41\% | 0.47\% | 4.0 | 4.6 | 125\% | 109\% |
| 42 | 4 | 1,029 | 0.0039 | 0.42\% | 0.48\% | 4.3 | 5.0 | 93\% | 80\% |
| 43 | 7 | 1,106 | 0.0063 | 0.43\% | 0.49\% | 4.8 | 5.5 | 147\% | 128\% |
| 44 | 9 | 1,124 | 0.0080 | 0.44\% | 0.51\% | 4.9 | 5.7 | 182\% | 158\% |
| 45 | 4 | 1,056 | 0.0038 | 0.45\% | 0.52\% | 4.8 | 5.5 | 84\% | 73\% |
| 46 | 7 | 1,003 | 0.0070 | 0.46\% | 0.53\% | 4.6 | 5.3 | 152\% | 132\% |
| 47 | 7 | 935 | 0.0075 | 0.47\% | 0.54\% | 4.4 | 5.1 | 159\% | 139\% |
| 48 | 5 | 835 | 0.0060 | 0.48\% | 0.55\% | 4.0 | 4.6 | 125\% | 108\% |
| 49 | 8 | 736 | 0.0109 | 0.49\% | 0.56\% | 3.6 | 4.1 | 222\% | 193\% |
| 50 | 4 | 659 | 0.0061 | 0.50\% | 0.58\% | 3.3 | 3.8 | 121\% | 106\% |
| 51 | 3 | 573 | 0.0052 | 0.52\% | 0.60\% | 3.0 | 3.4 | 101\% | 88\% |
| 52 | 11 | 480 | 0.0229 | 0.54\% | 0.62\% | 2.6 | 3.0 | 424\% | 369\% |
| 53 | 0 | 399 | 0.0000 | 0.56\% | 0.64\% | 2.2 | 2.6 | 0\% | 0\% |
| 54 | 1 | 347 | 0.0029 | 0.58\% | 0.67\% | 2.0 | 2.3 | 50\% | 43\% |
| 55 | 3 | 285 | 0.0105 | 0.60\% | 0.69\% | 1.7 | 2.0 | 175\% | 153\% |
| 56 | 4 | 247 | 0.0162 | 0.62\% | 0.71\% | 1.5 | 1.8 | 261\% | 227\% |
| 57 | 3 | 212 | 0.0142 | 0.64\% | 0.74\% | 1.4 | 1.6 | 221\% | 192\% |
| 58 | 0 | 147 | 0.0000 | 0.66\% | 0.76\% | 1.0 | 1.1 | 0\% | 0\% |
| 59 | 2 | 105 | 0.0190 | 0.68\% | 0.78\% | 0.7 | 0.8 | 280\% | 244\% |
| 60 | 1 | 77 | 0.0130 | 0.70\% | 0.81\% | 0.5 | 0.6 | 186\% | 161\% |
| 61 | 1 | 46 | 0.0217 | 0.72\% | 0.83\% | 0.3 | 0.4 | 302\% | 263\% |
| 62 | 0 | 31 | 0.0000 | 0.74\% | 0.85\% | 0.2 | 0.3 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 113 | 19,907 |  |  |  | 85.1 | 97.8 | 133\% | 115\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS accidental disability experience of active members WOMEN

| Age | TABLE 11B |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Disabilities | Total Exposed <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \begin{array}{c} \text { (2) } /(\mathbf{3}) \\ \hline \end{array} \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ \text { (3) x (5) } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ \text { (3) } \times(6) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.20\% | 0.20\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 1 | 0.0000 | 0.21\% | 0.20\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 15 | 0.0000 | 0.22\% | 0.20\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 74 | 0.0000 | 0.23\% | 0.20\% | 0.2 | 0.1 | 0\% | 0\% |
| 24 | 0 | 149 | 0.0000 | 0.24\% | 0.20\% | 0.4 | 0.3 | 0\% | 0\% |
| 25 | 0 | 220 | 0.0000 | 0.25\% | 0.20\% | 0.6 | 0.4 | 0\% | 0\% |
| 26 | 0 | 252 | 0.0000 | 0.26\% | 0.20\% | 0.7 | 0.5 | 0\% | 0\% |
| 27 | 0 | 284 | 0.0000 | 0.27\% | 0.20\% | 0.8 | 0.6 | 0\% | 0\% |
| 28 | 0 | 338 | 0.0000 | 0.28\% | 0.20\% | 0.9 | 0.7 | 0\% | 0\% |
| 29 | 0 | 370 | 0.0000 | 0.29\% | 0.20\% | 1.1 | 0.7 | 0\% | 0\% |
| 30 | 0 | 369 | 0.0000 | 0.30\% | 0.20\% | 1.1 | 0.7 | 0\% | 0\% |
| 31 | 0 | 428 | 0.0000 | 0.31\% | 0.20\% | 1.3 | 0.9 | 0\% | 0\% |
| 32 | 0 | 438 | 0.0000 | 0.32\% | 0.20\% | 1.4 | 0.9 | 0\% | 0\% |
| 33 | 1 | 494 | 0.0020 | 0.33\% | 0.20\% | 1.6 | 1.0 | 61\% | 101\% |
| 34 | 0 | 504 | 0.0000 | 0.34\% | 0.20\% | 1.7 | 1.0 | 0\% | 0\% |
| 35 | 0 | 510 | 0.0000 | 0.35\% | 0.20\% | 1.8 | 1.0 | 0\% | 0\% |
| 36 | 0 | 513 | 0.0000 | 0.36\% | 0.20\% | 1.8 | 1.0 | 0\% | 0\% |
| 37 | 1 | 561 | 0.0018 | 0.37\% | 0.20\% | 2.1 | 1.1 | 48\% | 89\% |
| 38 | 2 | 639 | 0.0031 | 0.38\% | 0.20\% | 2.4 | 1.3 | 82\% | 156\% |
| 39 | 1 | 716 | 0.0014 | 0.39\% | 0.20\% | 2.8 | 1.4 | 36\% | 70\% |
| 40 | 2 | 786 | 0.0025 | 0.40\% | 0.20\% | 3.1 | 1.6 | 64\% | 127\% |
| 41 | 2 | 809 | 0.0025 | 0.41\% | 0.20\% | 3.3 | 1.6 | 60\% | 124\% |
| 42 | 1 | 850 | 0.0012 | 0.42\% | 0.20\% | 3.6 | 1.7 | 28\% | 59\% |
| 43 | 1 | 846 | 0.0012 | 0.43\% | 0.20\% | 3.6 | 1.7 | 27\% | 59\% |
| 44 | 0 | 874 | 0.0000 | 0.44\% | 0.20\% | 3.8 | 1.7 | 0\% | 0\% |
| 45 | 3 | 837 | 0.0036 | 0.45\% | 0.20\% | 3.8 | 1.7 | 80\% | 179\% |
| 46 | 0 | 769 | 0.0000 | 0.46\% | 0.20\% | 3.5 | 1.5 | 0\% | 0\% |
| 47 | 0 | 679 | 0.0000 | 0.47\% | 0.20\% | 3.2 | 1.4 | 0\% | 0\% |
| 48 | 3 | 579 | 0.0052 | 0.48\% | 0.20\% | 2.8 | 1.2 | 108\% | 259\% |
| 49 | 0 | 497 | 0.0000 | 0.49\% | 0.20\% | 2.4 | 1.0 | 0\% | 0\% |
| 50 | 0 | 423 | 0.0000 | 0.50\% | 0.20\% | 2.1 | 0.8 | 0\% | 0\% |
| 51 | 2 | 390 | 0.0051 | 0.52\% | 0.20\% | 2.0 | 0.8 | 99\% | 256\% |
| 52 | 0 | 316 | 0.0000 | 0.54\% | 0.20\% | 1.7 | 0.6 | 0\% | 0\% |
| 53 | 1 | 272 | 0.0037 | 0.56\% | 0.20\% | 1.5 | 0.5 | 66\% | 184\% |
| 54 | 1 | 213 | 0.0047 | 0.58\% | 0.20\% | 1.2 | 0.4 | 81\% | 235\% |
| 55 | 0 | 168 | 0.0000 | 0.60\% | 0.20\% | 1.0 | 0.3 | 0\% | 0\% |
| 56 | 0 | 133 | 0.0000 | 0.62\% | 0.20\% | 0.8 | 0.3 | 0\% | 0\% |
| 57 | 1 | 83 | 0.0120 | 0.64\% | 0.20\% | 0.5 | 0.2 | 188\% | 602\% |
| 58 | 1 | 64 | 0.0156 | 0.66\% | 0.20\% | 0.4 | 0.1 | 237\% | 781\% |
| 59 | 1 | 40 | 0.0250 | 0.68\% | 0.20\% | 0.3 | 0.1 | 368\% | 1250\% |
| 60 | 0 | 29 | 0.0000 | 0.70\% | 0.20\% | 0.2 | 0.1 | 0\% | 0\% |
| 61 | 0 | 18 | 0.0000 | 0.72\% | 0.20\% | 0.1 | 0.0 | 0\% | 0\% |
| 62 | 0 | 7 | 0.0000 | 0.74\% | 0.20\% | 0.1 | 0.0 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 24 | 16,557 |  |  |  | 67.9 | 33.1 | 35\% | 72\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS aCCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

|  | TABLE 11C |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed $(\mathbf{2}) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 1 | 0.0000 | 0.20\% | 0.23\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 5 | 0.0000 | 0.21\% | 0.23\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 38 | 0.0000 | 0.22\% | 0.23\% | 0.1 | 0.1 | 0\% | 0\% |
| 23 | 0 | 173 | 0.0000 | 0.23\% | 0.24\% | 0.4 | 0.4 | 0\% | 0\% |
| 24 | 0 | 309 | 0.0000 | 0.24\% | 0.24\% | 0.7 | 0.7 | 0\% | 0\% |
| 25 | 0 | 450 | 0.0000 | 0.25\% | 0.24\% | 1.1 | 1.1 | 0\% | 0\% |
| 26 | 0 | 530 | 0.0000 | 0.26\% | 0.25\% | 1.4 | 1.3 | 0\% | 0\% |
| 27 | 0 | 585 | 0.0000 | 0.27\% | 0.26\% | 1.6 | 1.5 | 0\% | 0\% |
| 28 | 0 | 683 | 0.0000 | 0.28\% | 0.26\% | 1.9 | 1.8 | 0\% | 0\% |
| 29 | 0 | 744 | 0.0000 | 0.29\% | 0.27\% | 2.2 | 2.0 | 0\% | 0\% |
| 30 | 1 | 734 | 0.0014 | 0.30\% | 0.27\% | 2.2 | 2.0 | 45\% | 50\% |
| 31 | 0 | 802 | 0.0000 | 0.31\% | 0.27\% | 2.5 | 2.2 | 0\% | 0\% |
| 32 | 2 | 830 | 0.0024 | 0.32\% | 0.28\% | 2.7 | 2.3 | 75\% | 86\% |
| 33 | 1 | 914 | 0.0011 | 0.33\% | 0.28\% | 3.0 | 2.6 | 33\% | 39\% |
| 34 | 0 | 952 | 0.0000 | 0.34\% | 0.29\% | 3.2 | 2.8 | 0\% | 0\% |
| 35 | 2 | 992 | 0.0020 | 0.35\% | 0.30\% | 3.5 | 3.0 | 58\% | 68\% |
| 36 | 5 | 1,029 | 0.0049 | 0.36\% | 0.31\% | 3.7 | 3.2 | 135\% | 158\% |
| 37 | 2 | 1,101 | 0.0018 | 0.37\% | 0.31\% | 4.1 | 3.4 | 49\% | 58\% |
| 38 | 7 | 1,244 | 0.0056 | 0.38\% | 0.32\% | 4.7 | 3.9 | 148\% | 178\% |
| 39 | 5 | 1,415 | 0.0035 | 0.39\% | 0.32\% | 5.5 | 4.6 | 91\% | 109\% |
| 40 | 6 | 1,630 | 0.0037 | 0.40\% | 0.33\% | 6.5 | 5.5 | 92\% | 110\% |
| 41 | 7 | 1,784 | 0.0039 | 0.41\% | 0.35\% | 7.3 | 6.2 | 96\% | 113\% |
| 42 | 5 | 1,879 | 0.0027 | 0.42\% | 0.35\% | 7.9 | 6.7 | 63\% | 75\% |
| 43 | 8 | 1,952 | 0.0041 | 0.43\% | 0.37\% | 8.4 | 7.2 | 95\% | 112\% |
| 44 | 9 | 1,998 | 0.0045 | 0.44\% | 0.37\% | 8.8 | 7.4 | 102\% | 121\% |
| 45 | 7 | 1,893 | 0.0037 | 0.45\% | 0.38\% | 8.5 | 7.1 | 82\% | 98\% |
| 46 | 7 | 1,772 | 0.0040 | 0.46\% | 0.39\% | 8.2 | 6.8 | 86\% | 102\% |
| 47 | 7 | 1,614 | 0.0043 | 0.47\% | 0.40\% | 7.6 | 6.4 | 92\% | 109\% |
| 48 | 8 | 1,414 | 0.0057 | 0.48\% | 0.41\% | 6.8 | 5.8 | 118\% | 139\% |
| 49 | 8 | 1,233 | 0.0065 | 0.49\% | 0.42\% | 6.0 | 5.1 | 132\% | 156\% |
| 50 | 4 | 1,082 | 0.0037 | 0.50\% | 0.43\% | 5.4 | 4.6 | 74\% | 86\% |
| 51 | 5 | 963 | 0.0052 | 0.52\% | 0.44\% | 5.0 | 4.2 | 100\% | 119\% |
| 52 | 11 | 796 | 0.0138 | 0.54\% | 0.45\% | 4.3 | 3.6 | 256\% | 304\% |
| 53 | 1 | 671 | 0.0015 | 0.56\% | 0.46\% | 3.8 | 3.1 | 27\% | 32\% |
| 54 | 2 | 560 | 0.0036 | 0.58\% | 0.49\% | 3.2 | 2.7 | 62\% | 73\% |
| 55 | 3 | 453 | 0.0066 | 0.60\% | 0.51\% | 2.7 | 2.3 | 110\% | 130\% |
| 56 | 4 | 380 | 0.0105 | 0.62\% | 0.53\% | 2.4 | 2.0 | 170\% | 197\% |
| 57 | 4 | 295 | 0.0136 | 0.64\% | 0.59\% | 1.9 | 1.7 | 212\% | 232\% |
| 58 | 1 | 211 | 0.0047 | 0.66\% | 0.59\% | 1.4 | 1.2 | 72\% | 80\% |
| 59 | 3 | 145 | 0.0207 | 0.68\% | 0.62\% | 1.0 | 0.9 | 304\% | 333\% |
| 60 | 1 | 106 | 0.0094 | 0.70\% | 0.64\% | 0.7 | 0.7 | 135\% | 148\% |
| 61 | 1 | 64 | 0.0156 | 0.72\% | 0.65\% | 0.5 | 0.4 | 217\% | 240\% |
| 62 | 0 | 38 | 0.0000 | 0.74\% | 0.73\% | 0.3 | 0.3 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 137 | 36,464 |  |  |  | 153.0 | 131.0 | 90\% | 105\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN

|  | TABLE 11A GROUPED |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2011 <br> Expected Disabilities $\qquad$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } /(\mathbf{3}) \\ & \hline \end{aligned}$ | Expected $(7) /(3)$ | Proposed $(8) /(3)$ | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 287 | 0.0000 | 0.23\% | 0.27\% | 0.7 | 0.8 | 0\% | 0\% |
| 25-29 | 0 | 1,528 | 0.0000 | 0.27\% | 0.31\% | 4.2 | 4.8 | 0\% | 0\% |
| 30-34 | 3 | 1,999 | 0.0015 | 0.32\% | 0.37\% | 6.4 | 7.4 | 47\% | 41\% |
| 35-39 | 17 | 2,842 | 0.0060 | 0.37\% | 0.43\% | 10.6 | 12.2 | 161\% | 140\% |
| 40-44 | 29 | 5,078 | 0.0057 | 0.42\% | 0.48\% | 21.4 | 24.6 | 136\% | 118\% |
| 45-49 | 31 | 4,565 | 0.0068 | 0.47\% | 0.54\% | 21.4 | 24.6 | 145\% | 126\% |
| 50-54 | 19 | 2,458 | 0.0077 | 0.53\% | 0.61\% | 13.1 | 15.1 | 145\% | 126\% |
| 55-59 | 12 | 996 | 0.0120 | 0.63\% | 0.73\% | 6.3 | 7.2 | 191\% | 166\% |
| 60-64 | 2 | 154 | 0.0130 | 0.71\% | 0.82\% | 1.1 | 1.3 | 182\% | 158\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 113 | 19,907 |  |  |  | 85.1 | 97.8 | 133\% | 115\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

|  | TABLE 11B GROUPED |  |  | Assumed Probability $\quad \begin{gathered}\text { 4-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered} \quad \begin{aligned} & \text { Actual/Expected }\end{aligned}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | Actual Rate $(2) /(3)$ | Expected <br> (7) / (3) | Proposed $(8) /(3)$ | Expected | Proposed | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 239 | 0.0000 | 0.24\% | 0.20\% | 0.6 | 0.5 | 0\% | 0\% |
| 25-29 | 0 | 1,464 | 0.0000 | 0.27\% | 0.20\% | 4.0 | 2.9 | 0\% | 0\% |
| 30-34 | 1 | 2,233 | 0.0004 | 0.32\% | 0.20\% | 7.2 | 4.5 | 14\% | 22\% |
| 35-39 | 4 | 2,939 | 0.0014 | 0.37\% | 0.20\% | 10.9 | 5.9 | 37\% | 68\% |
| 40-44 | 6 | 4,165 | 0.0014 | 0.42\% | 0.20\% | 17.5 | 8.3 | 34\% | 72\% |
| 45-49 | 6 | 3,361 | 0.0018 | 0.47\% | 0.20\% | 15.7 | 6.7 | 38\% | 89\% |
| 50-54 | 4 | 1,614 | 0.0025 | 0.53\% | 0.20\% | 8.6 | 3.2 | 46\% | 124\% |
| 55-59 | 3 | 488 | 0.0061 | 0.63\% | 0.20\% | 3.1 | 1.0 | 98\% | 307\% |
| 60-64 | 0 | 54 | 0.0000 | 0.71\% | 0.20\% | 0.4 | 0.1 | 0\% | 0\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 24 | 16,557 |  |  |  | 67.9 | 33.1 | 35\% | 72\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

|  | TABLE 11C GROUPED |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2011Expected Disabilities |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Disabilities | Total Exposed | Actual Rate $(2) /(3)$ | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 526 | 0.0000 | 0.23\% | 0.24\% | 1.2 | 1.3 | 0\% | 0\% |
| 25-29 | 0 | 2,992 | 0.0000 | 0.27\% | 0.26\% | 8.2 | 7.7 | 0\% | 0\% |
| 30-34 | 4 | 4,232 | 0.0009 | 0.32\% | 0.28\% | 13.6 | 11.8 | 29\% | 34\% |
| 35-39 | 21 | 5,781 | 0.0036 | 0.37\% | 0.31\% | 21.5 | 18.0 | 98\% | 116\% |
| 40-44 | 35 | 9,243 | 0.0038 | 0.42\% | 0.36\% | 38.9 | 32.9 | 90\% | 106\% |
| 45-49 | 37 | 7,926 | 0.0047 | 0.47\% | 0.39\% | 37.1 | 31.3 | 100\% | 118\% |
| 50-54 | 23 | 4,072 | 0.0056 | 0.53\% | 0.45\% | 21.7 | 18.3 | 106\% | 126\% |
| 55-59 | 15 | 1,484 | 0.0101 | 0.63\% | 0.55\% | 9.3 | 8.2 | 161\% | 183\% |
| 60-64 | 2 | 208 | 0.0096 | 0.71\% | 0.66\% | 1.5 | 1.4 | 135\% | 146\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 137 | 36,464 |  |  |  | 153.0 | 131.0 | 90\% | 105\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS aCCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN

| Age | TABLE 11A |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ \text { (3) } \times(5) \\ \hline \end{gathered}$ | Proposed $(3) \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 2 | 0.0000 | 0.20\% | 0.23\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 8 | 0.0000 | 0.21\% | 0.24\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 40 | 0.0000 | 0.22\% | 0.25\% | 0.1 | 0.1 | 0\% | 0\% |
| 23 | 0 | 131 | 0.0000 | 0.23\% | 0.26\% | 0.3 | 0.3 | 0\% | 0\% |
| 24 | 0 | 219 | 0.0000 | 0.24\% | 0.28\% | 0.5 | 0.6 | 0\% | 0\% |
| 25 | 0 | 337 | 0.0000 | 0.25\% | 0.29\% | 0.8 | 1.0 | 0\% | 0\% |
| 26 | 0 | 424 | 0.0000 | 0.26\% | 0.30\% | 1.1 | 1.3 | 0\% | 0\% |
| 27 | 0 | 479 | 0.0000 | 0.27\% | 0.31\% | 1.3 | 1.5 | 0\% | 0\% |
| 28 | 0 | 563 | 0.0000 | 0.28\% | 0.32\% | 1.6 | 1.8 | 0\% | 0\% |
| 29 | 0 | 642 | 0.0000 | 0.29\% | 0.33\% | 1.9 | 2.1 | 0\% | 0\% |
| 30 | 1 | 665 | 0.0015 | 0.30\% | 0.35\% | 2.0 | 2.3 | 50\% | 44\% |
| 31 | 1 | 732 | 0.0014 | 0.31\% | 0.36\% | 2.3 | 2.6 | 44\% | 38\% |
| 32 | 4 | 778 | 0.0051 | 0.32\% | 0.37\% | 2.5 | 2.9 | 161\% | 140\% |
| 33 | 3 | 845 | 0.0036 | 0.33\% | 0.38\% | 2.8 | 3.2 | 108\% | 94\% |
| 34 | 2 | 953 | 0.0021 | 0.34\% | 0.39\% | 3.2 | 3.7 | 62\% | 54\% |
| 35 | 3 | 1,073 | 0.0028 | 0.35\% | 0.40\% | 3.8 | 4.3 | 80\% | 69\% |
| 36 | 7 | 1,263 | 0.0055 | 0.36\% | 0.41\% | 4.5 | 5.2 | 154\% | 134\% |
| 37 | 5 | 1,467 | 0.0034 | 0.37\% | 0.43\% | 5.4 | 6.2 | 92\% | 80\% |
| 38 | 12 | 1,727 | 0.0069 | 0.38\% | 0.44\% | 6.6 | 7.5 | 183\% | 159\% |
| 39 | 9 | 2,031 | 0.0044 | 0.39\% | 0.45\% | 7.9 | 9.1 | 114\% | 99\% |
| 40 | 16 | 2,361 | 0.0068 | 0.40\% | 0.46\% | 9.4 | 10.9 | 169\% | 147\% |
| 41 | 9 | 2,534 | 0.0036 | 0.41\% | 0.47\% | 10.4 | 11.9 | 87\% | 75\% |
| 42 | 18 | 2,586 | 0.0070 | 0.42\% | 0.48\% | 10.9 | 12.5 | 166\% | 144\% |
| 43 | 17 | 2,544 | 0.0067 | 0.43\% | 0.49\% | 10.9 | 12.6 | 155\% | 135\% |
| 44 | 17 | 2,387 | 0.0071 | 0.44\% | 0.51\% | 10.5 | 12.1 | 162\% | 141\% |
| 45 | 8 | 2,203 | 0.0036 | 0.45\% | 0.52\% | 9.9 | 11.4 | 81\% | 70\% |
| 46 | 13 | 2,041 | 0.0064 | 0.46\% | 0.53\% | 9.4 | 10.8 | 138\% | 120\% |
| 47 | 9 | 1,851 | 0.0049 | 0.47\% | 0.54\% | 8.7 | 10.0 | 103\% | 90\% |
| 48 | 15 | 1,632 | 0.0092 | 0.48\% | 0.55\% | 7.8 | 9.0 | 191\% | 167\% |
| 49 | 11 | 1,438 | 0.0076 | 0.49\% | 0.56\% | 7.0 | 8.1 | 156\% | 136\% |
| 50 | 10 | 1,253 | 0.0080 | 0.50\% | 0.58\% | 6.3 | 7.2 | 160\% | 139\% |
| 51 | 5 | 1,053 | 0.0047 | 0.52\% | 0.60\% | 5.5 | 6.3 | 91\% | 79\% |
| 52 | 12 | 886 | 0.0135 | 0.54\% | 0.62\% | 4.8 | 5.5 | 251\% | 218\% |
| 53 | 1 | 723 | 0.0014 | 0.56\% | 0.64\% | 4.0 | 4.7 | 25\% | 21\% |
| 54 | 2 | 568 | 0.0035 | 0.58\% | 0.67\% | 3.3 | 3.8 | 61\% | 53\% |
| 55 | 4 | 446 | 0.0090 | 0.60\% | 0.69\% | 2.7 | 3.1 | 149\% | 130\% |
| 56 | 5 | 356 | 0.0140 | 0.62\% | 0.71\% | 2.2 | 2.5 | 227\% | 197\% |
| 57 | 3 | 292 | 0.0103 | 0.64\% | 0.74\% | 1.9 | 2.1 | 161\% | 140\% |
| 58 | 0 | 206 | 0.0000 | 0.66\% | 0.76\% | 1.4 | 1.6 | 0\% | 0\% |
| 59 | 2 | 143 | 0.0140 | 0.68\% | 0.78\% | 1.0 | 1.1 | 206\% | 179\% |
| 60 | 1 | 96 | 0.0104 | 0.70\% | 0.81\% | 0.7 | 0.8 | 149\% | 129\% |
| 61 | 1 | 53 | 0.0189 | 0.72\% | 0.83\% | 0.4 | 0.4 | 262\% | 228\% |
| 62 | 0 | 35 | 0.0000 | 0.74\% | 0.85\% | 0.3 | 0.3 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 226 | 42,066 |  |  |  | 177.9 | 204.6 | 127\% | 110\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS accidental disability experience of active members WOMEN

|  | TABLE 11B |  |  | Assumed | bability | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 1 | 0.0000 | 0.20\% | 0.20\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 4 | 0.0000 | 0.21\% | 0.20\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 27 | 0.0000 | 0.22\% | 0.20\% | 0.1 | 0.1 | 0\% | 0\% |
| 23 | 0 | 106 | 0.0000 | 0.23\% | 0.20\% | 0.2 | 0.2 | 0\% | 0\% |
| 24 | 0 | 233 | 0.0000 | 0.24\% | 0.20\% | 0.6 | 0.5 | 0\% | 0\% |
| 25 | 0 | 347 | 0.0000 | 0.25\% | 0.20\% | 0.9 | 0.7 | 0\% | 0\% |
| 26 | 0 | 424 | 0.0000 | 0.26\% | 0.20\% | 1.1 | 0.8 | 0\% | 0\% |
| 27 | 0 | 531 | 0.0000 | 0.27\% | 0.20\% | 1.4 | 1.1 | 0\% | 0\% |
| 28 | 0 | 613 | 0.0000 | 0.28\% | 0.20\% | 1.7 | 1.2 | 0\% | 0\% |
| 29 | 0 | 687 | 0.0000 | 0.29\% | 0.20\% | 2.0 | 1.4 | 0\% | 0\% |
| 30 | 0 | 730 | 0.0000 | 0.30\% | 0.20\% | 2.2 | 1.5 | 0\% | 0\% |
| 31 | 0 | 810 | 0.0000 | 0.31\% | 0.20\% | 2.5 | 1.6 | 0\% | 0\% |
| 32 | 1 | 858 | 0.0012 | 0.32\% | 0.20\% | 2.7 | 1.7 | 36\% | 58\% |
| 33 | 1 | 956 | 0.0010 | 0.33\% | 0.20\% | 3.2 | 1.9 | 32\% | 52\% |
| 34 | 2 | 1,049 | 0.0019 | 0.34\% | 0.20\% | 3.6 | 2.1 | 56\% | 95\% |
| 35 | 0 | 1,137 | 0.0000 | 0.35\% | 0.20\% | 4.0 | 2.3 | 0\% | 0\% |
| 36 | 1 | 1,221 | 0.0008 | 0.36\% | 0.20\% | 4.4 | 2.4 | 23\% | 41\% |
| 37 | 2 | 1,342 | 0.0015 | 0.37\% | 0.20\% | 5.0 | 2.7 | 40\% | 75\% |
| 38 | 4 | 1,522 | 0.0026 | 0.38\% | 0.20\% | 5.8 | 3.0 | 69\% | 131\% |
| 39 | 2 | 1,650 | 0.0012 | 0.39\% | 0.20\% | 6.4 | 3.3 | 31\% | 61\% |
| 40 | 4 | 1,807 | 0.0022 | 0.40\% | 0.20\% | 7.2 | 3.6 | 55\% | 111\% |
| 41 | 2 | 1,867 | 0.0011 | 0.41\% | 0.20\% | 7.7 | 3.7 | 26\% | 54\% |
| 42 | 2 | 1,886 | 0.0011 | 0.42\% | 0.20\% | 7.9 | 3.8 | 25\% | 53\% |
| 43 | 4 | 1,809 | 0.0022 | 0.43\% | 0.20\% | 7.8 | 3.6 | 51\% | 111\% |
| 44 | 1 | 1,728 | 0.0006 | 0.44\% | 0.20\% | 7.6 | 3.5 | 13\% | 29\% |
| 45 | 4 | 1,573 | 0.0025 | 0.45\% | 0.20\% | 7.1 | 3.1 | 57\% | 127\% |
| 46 | 2 | 1,398 | 0.0014 | 0.46\% | 0.20\% | 6.4 | 2.8 | 31\% | 72\% |
| 47 | 4 | 1,247 | 0.0032 | 0.47\% | 0.20\% | 5.9 | 2.5 | 68\% | 160\% |
| 48 | 4 | 1,058 | 0.0038 | 0.48\% | 0.20\% | 5.1 | 2.1 | 79\% | 189\% |
| 49 | 2 | 930 | 0.0022 | 0.49\% | 0.20\% | 4.6 | 1.9 | 44\% | 108\% |
| 50 | 0 | 793 | 0.0000 | 0.50\% | 0.20\% | 4.0 | 1.6 | 0\% | 0\% |
| 51 | 3 | 693 | 0.0043 | 0.52\% | 0.20\% | 3.6 | 1.4 | 83\% | 216\% |
| 52 | 1 | 548 | 0.0018 | 0.54\% | 0.20\% | 3.0 | 1.1 | 34\% | 91\% |
| 53 | 1 | 432 | 0.0023 | 0.56\% | 0.20\% | 2.4 | 0.9 | 41\% | 116\% |
| 54 | 1 | 326 | 0.0031 | 0.58\% | 0.20\% | 1.9 | 0.7 | 53\% | 153\% |
| 55 | 0 | 237 | 0.0000 | 0.60\% | 0.20\% | 1.4 | 0.5 | 0\% | 0\% |
| 56 | 0 | 181 | 0.0000 | 0.62\% | 0.20\% | 1.1 | 0.4 | 0\% | 0\% |
| 57 | 1 | 116 | 0.0086 | 0.64\% | 0.20\% | 0.7 | 0.2 | 135\% | 431\% |
| 58 | 1 | 77 | 0.0130 | 0.66\% | 0.20\% | 0.5 | 0.2 | 197\% | 649\% |
| 59 | 1 | 47 | 0.0213 | 0.68\% | 0.20\% | 0.3 | 0.1 | 313\% | 1064\% |
| 60 | 0 | 35 | 0.0000 | 0.70\% | 0.20\% | 0.2 | 0.1 | 0\% | 0\% |
| 61 | 0 | 22 | 0.0000 | 0.72\% | 0.20\% | 0.2 | 0.0 | 0\% | 0\% |
| 62 | 0 | 10 | 0.0000 | 0.74\% | 0.20\% | 0.1 | 0.0 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 51 | 33,068 |  |  |  | 134.3 | 66.1 | 38\% | 77\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS aCCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

|  | TABLE 11C |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 3 | 0.0000 | 0.20\% | 0.22\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 12 | 0.0000 | 0.21\% | 0.23\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 67 | 0.0000 | 0.22\% | 0.23\% | 0.1 | 0.2 | 0\% | 0\% |
| 23 | 0 | 237 | 0.0000 | 0.23\% | 0.24\% | 0.5 | 0.6 | 0\% | 0\% |
| 24 | 0 | 452 | 0.0000 | 0.24\% | 0.24\% | 1.1 | 1.1 | 0\% | 0\% |
| 25 | 0 | 684 | 0.0000 | 0.25\% | 0.24\% | 1.7 | 1.7 | 0\% | 0\% |
| 26 | 0 | 848 | 0.0000 | 0.26\% | 0.25\% | 2.2 | 2.1 | 0\% | 0\% |
| 27 | 0 | 1,010 | 0.0000 | 0.27\% | 0.25\% | 2.7 | 2.5 | 0\% | 0\% |
| 28 | 0 | 1,176 | 0.0000 | 0.28\% | 0.26\% | 3.3 | 3.0 | 0\% | 0\% |
| 29 | 0 | 1,329 | 0.0000 | 0.29\% | 0.26\% | 3.9 | 3.5 | 0\% | 0\% |
| 30 | 1 | 1,395 | 0.0007 | 0.30\% | 0.27\% | 4.2 | 3.8 | 24\% | 27\% |
| 31 | 1 | 1,542 | 0.0006 | 0.31\% | 0.27\% | 4.8 | 4.2 | 21\% | 24\% |
| 32 | 5 | 1,636 | 0.0031 | 0.32\% | 0.28\% | 5.2 | 4.6 | 96\% | 109\% |
| 33 | 4 | 1,801 | 0.0022 | 0.33\% | 0.28\% | 5.9 | 5.1 | 67\% | 78\% |
| 34 | 4 | 2,002 | 0.0020 | 0.34\% | 0.29\% | 6.8 | 5.8 | 59\% | 69\% |
| 35 | 3 | 2,210 | 0.0014 | 0.35\% | 0.30\% | 7.7 | 6.6 | 39\% | 46\% |
| 36 | 8 | 2,484 | 0.0032 | 0.36\% | 0.31\% | 8.9 | 7.7 | 89\% | 104\% |
| 37 | 7 | 2,809 | 0.0025 | 0.37\% | 0.32\% | 10.4 | 8.9 | 67\% | 78\% |
| 38 | 16 | 3,249 | 0.0049 | 0.38\% | 0.33\% | 12.3 | 10.6 | 130\% | 151\% |
| 39 | 11 | 3,681 | 0.0030 | 0.39\% | 0.34\% | 14.4 | 12.4 | 77\% | 89\% |
| 40 | 20 | 4,168 | 0.0048 | 0.40\% | 0.35\% | 16.7 | 14.5 | 120\% | 138\% |
| 41 | 11 | 4,401 | 0.0025 | 0.41\% | 0.36\% | 18.0 | 15.7 | 61\% | 70\% |
| 42 | 20 | 4,472 | 0.0045 | 0.42\% | 0.36\% | 18.8 | 16.3 | 106\% | 123\% |
| 43 | 21 | 4,353 | 0.0048 | 0.43\% | 0.37\% | 18.7 | 16.2 | 112\% | 130\% |
| 44 | 18 | 4,115 | 0.0044 | 0.44\% | 0.38\% | 18.1 | 15.5 | 99\% | 116\% |
| 45 | 12 | 3,776 | 0.0032 | 0.45\% | 0.39\% | 17.0 | 14.5 | 71\% | 82\% |
| 46 | 15 | 3,439 | 0.0044 | 0.46\% | 0.40\% | 15.8 | 13.6 | 95\% | 110\% |
| 47 | 13 | 3,098 | 0.0042 | 0.47\% | 0.40\% | 14.6 | 12.5 | 89\% | 104\% |
| 48 | 19 | 2,690 | 0.0071 | 0.48\% | 0.41\% | 12.9 | 11.1 | 147\% | 171\% |
| 49 | 13 | 2,368 | 0.0055 | 0.49\% | 0.42\% | 11.6 | 10.0 | 112\% | 130\% |
| 50 | 10 | 2,046 | 0.0049 | 0.50\% | 0.43\% | 10.2 | 8.8 | 98\% | 114\% |
| 51 | 8 | 1,746 | 0.0046 | 0.52\% | 0.44\% | 9.1 | 7.7 | 88\% | 104\% |
| 52 | 13 | 1,434 | 0.0091 | 0.54\% | 0.46\% | 7.7 | 6.6 | 168\% | 197\% |
| 53 | 2 | 1,155 | 0.0017 | 0.56\% | 0.48\% | 6.5 | 5.5 | 31\% | 36\% |
| 54 | 3 | 894 | 0.0034 | 0.58\% | 0.50\% | 5.2 | 4.4 | 58\% | 68\% |
| 55 | 4 | 683 | 0.0059 | 0.60\% | 0.52\% | 4.1 | 3.6 | 98\% | 113\% |
| 56 | 5 | 537 | 0.0093 | 0.62\% | 0.54\% | 3.3 | 2.9 | 150\% | 172\% |
| 57 | 4 | 408 | 0.0098 | 0.64\% | 0.58\% | 2.6 | 2.4 | 153\% | 168\% |
| 58 | 1 | 283 | 0.0035 | 0.66\% | 0.61\% | 1.9 | 1.7 | 54\% | 58\% |
| 59 | 3 | 190 | 0.0158 | 0.68\% | 0.64\% | 1.3 | 1.2 | 232\% | 247\% |
| 60 | 1 | 131 | 0.0076 | 0.70\% | 0.64\% | 0.9 | 0.8 | 109\% | 119\% |
| 61 | 1 | 75 | 0.0133 | 0.72\% | 0.64\% | 0.5 | 0.5 | 185\% | 207\% |
| 62 | 0 | 45 | 0.0000 | 0.74\% | 0.71\% | 0.3 | 0.3 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 277 | 75,134 |  |  |  | 312.2 | 270.7 | 89\% | 102\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN

|  | TABLE 11A GROUPED |  |  | Assumed Probability |  | 8-YEAR PERIOD ENDING 6/30/2011$\begin{aligned} & \text { Expected Disabilities }\end{aligned} \quad$ Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 400 | 0.0000 | 0.23\% | 0.27\% | 0.9 | 1.1 | 0\% | 0\% |
| 25-29 | 0 | 2,445 | 0.0000 | 0.27\% | 0.31\% | 6.7 | 7.7 | 0\% | 0\% |
| 30-34 | 11 | 3,973 | 0.0028 | 0.32\% | 0.37\% | 12.8 | 14.7 | 86\% | 75\% |
| 35-39 | 36 | 7,561 | 0.0048 | 0.37\% | 0.43\% | 28.2 | 32.4 | 128\% | 111\% |
| 40-44 | 77 | 12,412 | 0.0062 | 0.42\% | 0.48\% | 52.1 | 60.0 | 148\% | 128\% |
| 45-49 | 56 | 9,165 | 0.0061 | 0.47\% | 0.54\% | 42.9 | 49.3 | 131\% | 114\% |
| 50-54 | 30 | 4,483 | 0.0067 | 0.53\% | 0.61\% | 23.9 | 27.4 | 126\% | 109\% |
| 55-59 | 14 | 1,443 | 0.0097 | 0.63\% | 0.72\% | 9.1 | 10.4 | 154\% | 134\% |
| 60-64 | 2 | 184 | 0.0109 | 0.71\% | 0.82\% | 1.3 | 1.5 | 152\% | 132\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 226 | 42,066 |  |  |  | 177.9 | 204.6 | 127\% | 110\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

|  | TABLE 11B GROUPED |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | Actual Rate $(2) /(3)$ | Expected <br> (7) / (3) | Proposed $(8) /(3)$ | Expected | Proposed | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 371 | 0.0000 | 0.24\% | 0.20\% | 0.9 | 0.7 | 0\% | 0\% |
| 25-29 | 0 | 2,602 | 0.0000 | 0.27\% | 0.20\% | 7.1 | 5.2 | 0\% | 0\% |
| 30-34 | 4 | 4,403 | 0.0009 | 0.32\% | 0.20\% | 14.2 | 8.8 | 28\% | 45\% |
| 35-39 | 9 | 6,872 | 0.0013 | 0.37\% | 0.20\% | 25.6 | 13.7 | 35\% | 65\% |
| 40-44 | 13 | 9,097 | 0.0014 | 0.42\% | 0.20\% | 38.2 | 18.2 | 34\% | 71\% |
| 45-49 | 16 | 6,206 | 0.0026 | 0.47\% | 0.20\% | 29.0 | 12.4 | 55\% | 129\% |
| 50-54 | 6 | 2,792 | 0.0021 | 0.53\% | 0.20\% | 14.8 | 5.6 | 40\% | 107\% |
| 55-59 | 3 | 658 | 0.0046 | 0.63\% | 0.20\% | 4.1 | 1.3 | 73\% | 228\% |
| 60-64 | 0 | 67 | 0.0000 | 0.71\% | 0.20\% | 0.5 | 0.1 | 0\% | 0\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 51 | 33,068 |  |  |  | 134.3 | 66.1 | 38\% | 77\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

|  | TABLE 11C GROUPED |  |  | $\begin{array}{cc} \\ \text { Assumed Probability } & \begin{array}{c}\text { 8-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{array} \\ \text { Actual/Expected }\end{array}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | $\begin{gathered} \text { Proposed } \\ (8) /(3) \\ \hline \end{gathered}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 771 | 0.0000 | 0.23\% | 0.24\% | 1.8 | 1.8 | 0\% | 0\% |
| 25-29 | 0 | 5,047 | 0.0000 | 0.27\% | 0.26\% | 13.8 | 12.9 | 0\% | 0\% |
| 30-34 | 15 | 8,376 | 0.0018 | 0.32\% | 0.28\% | 27.0 | 23.5 | 56\% | 64\% |
| 35-39 | 45 | 14,433 | 0.0031 | 0.37\% | 0.32\% | 53.8 | 46.2 | 84\% | 97\% |
| 40-44 | 90 | 21,509 | 0.0042 | 0.42\% | 0.36\% | 90.3 | 78.2 | 100\% | 115\% |
| 45-49 | 72 | 15,371 | 0.0047 | 0.47\% | 0.40\% | 71.9 | 61.7 | 100\% | 117\% |
| 50-54 | 36 | 7,275 | 0.0049 | 0.53\% | 0.45\% | 38.7 | 33.0 | 93\% | 109\% |
| 55-59 | 17 | 2,101 | 0.0081 | 0.63\% | 0.56\% | 13.2 | 11.8 | 129\% | 145\% |
| 60-64 | 2 | 251 | 0.0080 | 0.71\% | 0.65\% | 1.8 | 1.6 | 112\% | 122\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 277 | 75,134 |  |  |  | 312.2 | 270.7 | 89\% | 102\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Plan Year Ending June 30, | TABLE 11D |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Disability Rate |  |
|  | Life Years Exposed | Actual Disabilities | Expected Disabilities | Actual / Expected | $\begin{aligned} & \hline \text { Actual } \\ & \text { (3) / (2) } \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 10,080 | 40 | 32.1 | 124\% | 0.40\% | 0.32\% |
| 2005 | 9,682 | 34 | 31.3 | 109\% | 0.35\% | 0.32\% |
| 2006 | 9,464 | 37 | 31.0 | 119\% | 0.39\% | 0.33\% |
| 2007 | 9,444 | 29 | 31.3 | 93\% | 0.31\% | 0.33\% |
| 2008 | 9,327 | 34 | 30.7 | 111\% | 0.36\% | 0.33\% |
| 2009 | 9,131 | 39 | 30.3 | 129\% | 0.43\% | 0.33\% |
| 2010 | 9,183 | 23 | 30.7 | 75\% | 0.25\% | 0.33\% |
| 2011 | 8,823 | 43 | 29.9 | 144\% | 0.49\% | 0.34\% |
| 2012 | 8,378 | 52 | 28.7 | 181\% | 0.62\% | 0.34\% |
| 2013 | 8,257 | 26 | 28.6 | 91\% | 0.31\% | 0.35\% |
| Total | 91,769 | 357 | 304.7 | 117\% | 0.39\% | 0.33\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

TABLE 12A 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Total Salary BOY |  | Actual Salary EOY |  | $\begin{gathered} \text { Expected Salary } \\ \text { EOY } \\ \hline \end{gathered}$ |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 252 | \$ | 10,840,724 | \$ | 12,151,889 | \$ | 12,358,425 | 86\% | 12.09\% | 14.00\% |
| 1 | 1,263 |  | 54,727,324 |  | 62,488,215 |  | 61,841,876 | 109\% | 14.18\% | 13.00\% |
| 2 | 1,509 |  | 73,101,162 |  | 83,471,197 |  | 81,873,301 | 118\% | 14.19\% | 12.00\% |
| 3 | 1,859 |  | 101,486,472 |  | 112,938,648 |  | 112,649,984 | 103\% | 11.28\% | 11.00\% |
| 4 | 2,319 |  | 140,772,976 |  | 178,254,522 |  | 209,751,734 | 54\% | 26.63\% | 49.00\% |
| 5 | 2,055 |  | 154,640,238 |  | 181,161,643 |  | 161,135,128 | 408\% | 17.15\% | 4.20\% |
| 6 | 1,650 |  | 141,729,895 |  | 148,335,430 |  | 147,966,010 | 106\% | 4.66\% | 4.40\% |
| 7 | 1,532 |  | 133,832,399 |  | 138,739,767 |  | 139,988,689 | 80\% | 3.67\% | 4.60\% |
| 8 | 1,262 |  | 108,242,511 |  | 113,923,895 |  | 113,438,152 | 109\% | 5.25\% | 4.80\% |
| 9 | 1,141 |  | 98,228,980 |  | 104,467,171 |  | 104,319,177 | 102\% | 6.35\% | 6.20\% |
| 10 | 1,304 |  | 116,956,280 |  | 122,107,962 |  | 122,804,094 | 88\% | 4.40\% | 5.00\% |
| 11 | 1,134 |  | 104,686,006 |  | 108,438,116 |  | 109,815,620 | 73\% | 3.58\% | 4.90\% |
| 12 | 1,363 |  | 126,090,359 |  | 130,577,324 |  | 132,142,696 | 74\% | 3.56\% | 4.80\% |
| 13 | 1,374 |  | 128,938,131 |  | 134,158,832 |  | 134,998,223 | 86\% | 4.05\% | 4.70\% |
| 14 | 1,260 |  | 121,745,427 |  | 125,915,702 |  | 128,928,407 | 58\% | 3.43\% | 5.90\% |
| 15 | 1,120 |  | 111,031,869 |  | 114,224,720 |  | 116,028,303 | 64\% | 2.88\% | 4.50\% |
| 16 | 664 |  | 66,069,072 |  | 67,600,898 |  | 68,976,111 | 53\% | 2.32\% | 4.40\% |
| 17 | 415 |  | 40,119,129 |  | 41,666,451 |  | 41,844,252 | 90\% | 3.86\% | 4.30\% |
| 18 | 633 |  | 60,505,479 |  | 63,761,387 |  | 63,046,709 | 128\% | 5.38\% | 4.20\% |
| 19 | 1,221 |  | 117,684,809 |  | 124,206,806 |  | 124,039,789 | 103\% | 5.54\% | 5.40\% |
| 20 | 1,348 |  | 134,414,704 |  | 141,685,393 |  | 139,791,292 | 135\% | 5.41\% | 4.00\% |
| 21 | 1,329 |  | 137,977,558 |  | 142,455,805 |  | 143,358,683 | 83\% | 3.25\% | 3.90\% |
| 22 | 1,363 |  | 142,636,534 |  | 146,445,493 |  | 148,056,722 | 70\% | 2.67\% | 3.80\% |
| 23 | 978 |  | 104,305,583 |  | 107,692,492 |  | 108,164,890 | 88\% | 3.25\% | 3.70\% |
| 24 | 711 |  | 77,584,667 |  | 79,495,046 |  | 80,377,715 | 68\% | 2.46\% | 3.60\% |
| 25 | 441 |  | 48,948,199 |  | 49,899,985 |  | 50,661,386 | 56\% | 1.94\% | 3.50\% |
| 26 | 234 |  | 26,202,737 |  | 26,738,007 |  | 27,119,833 | 58\% | 2.04\% | 3.50\% |
| 27 | 151 |  | 17,096,948 |  | 17,476,797 |  | 17,695,341 | 63\% | 2.22\% | 3.50\% |
| 28 | 126 |  | 14,438,519 |  | 14,854,149 |  | 14,943,867 | 82\% | 2.88\% | 3.50\% |
| 29 | 91 |  | 10,585,999 |  | 10,905,999 |  | 10,956,509 | 86\% | 3.02\% | 3.50\% |
| 30+ | 73 |  | 8,524,423 |  | 8,741,858 |  | 8,822,778 | 73\% | 2.55\% | 3.50\% |
| Total | 32,175 |  | 2,734,145,113 |  | 2,914,981,599 |  | ,937,895,697 | 89\% | 6.61\% | 7.45\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS
TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS
MEN AND WOMEN

TABLE 12A
4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Total Salary BOY |  | Actual Salary EOY |  | $\begin{gathered} \text { Proposed Salary } \\ \text { EOY } \\ \hline \end{gathered}$ |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 252 | \$ | 10,840,724 | \$ | 12,151,889 | \$ | 12,358,425 | 86\% | 12.09\% | 14.00\% |
| 1 | 1,263 |  | 54,727,324 |  | 62,488,215 |  | 61,841,876 | 109\% | 14.18\% | 13.00\% |
| 2 | 1,509 |  | 73,101,162 |  | 83,471,197 |  | 81,873,301 | 118\% | 14.19\% | 12.00\% |
| 3 | 1,859 |  | 101,486,472 |  | 112,938,648 |  | 112,649,984 | 103\% | 11.28\% | 11.00\% |
| 4 | 2,319 |  | 140,772,976 |  | 178,254,522 |  | 209,751,734 | 54\% | 26.63\% | 49.00\% |
| 5 | 2,055 |  | 154,640,238 |  | 181,161,643 |  | 161,135,128 | 408\% | 17.15\% | 4.20\% |
| 6 | 1,650 |  | 141,729,895 |  | 148,335,430 |  | 147,966,010 | 106\% | 4.66\% | 4.40\% |
| 7 | 1,532 |  | 133,832,399 |  | 138,739,767 |  | 139,988,689 | 80\% | 3.67\% | 4.60\% |
| 8 | 1,262 |  | 108,242,511 |  | 113,923,895 |  | 113,438,152 | 109\% | 5.25\% | 4.80\% |
| 9 | 1,141 |  | 98,228,980 |  | 104,467,171 |  | 104,319,177 | 102\% | 6.35\% | 6.20\% |
| 10 | 1,304 |  | 116,956,280 |  | 122,107,962 |  | 122,804,094 | 88\% | 4.40\% | 5.00\% |
| 11 | 1,134 |  | 104,686,006 |  | 108,438,116 |  | 109,815,620 | 73\% | 3.58\% | 4.90\% |
| 12 | 1,363 |  | 126,090,359 |  | 130,577,324 |  | 132,142,696 | 74\% | 3.56\% | 4.80\% |
| 13 | 1,374 |  | 128,938,131 |  | 134,158,832 |  | 134,998,223 | 86\% | 4.05\% | 4.70\% |
| 14 | 1,260 |  | 121,745,427 |  | 125,915,702 |  | 128,928,407 | 58\% | 3.43\% | 5.90\% |
| 15 | 1,120 |  | 111,031,869 |  | 114,224,720 |  | 116,028,303 | 64\% | 2.88\% | 4.50\% |
| 16 | 664 |  | 66,069,072 |  | 67,600,898 |  | 68,976,111 | 53\% | 2.32\% | 4.40\% |
| 17 | 415 |  | 40,119,129 |  | 41,666,451 |  | 41,844,252 | 90\% | 3.86\% | 4.30\% |
| 18 | 633 |  | 60,505,479 |  | 63,761,387 |  | 63,046,709 | 128\% | 5.38\% | 4.20\% |
| 19 | 1,221 |  | 117,684,809 |  | 124,206,806 |  | 124,039,789 | 103\% | 5.54\% | 5.40\% |
| 20 | 1,348 |  | 134,414,704 |  | 141,685,393 |  | 139,791,292 | 135\% | 5.41\% | 4.00\% |
| 21 | 1,329 |  | 137,977,558 |  | 142,455,805 |  | 143,358,683 | 83\% | 3.25\% | 3.90\% |
| 22 | 1,363 |  | 142,636,534 |  | 146,445,493 |  | 148,056,722 | 70\% | 2.67\% | 3.80\% |
| 23 | 978 |  | 104,305,583 |  | 107,692,492 |  | 108,164,890 | 88\% | 3.25\% | 3.70\% |
| 24 | 711 |  | 77,584,667 |  | 79,495,046 |  | 80,377,715 | 68\% | 2.46\% | 3.60\% |
| 25 | 441 |  | 48,948,199 |  | 49,899,985 |  | 50,661,386 | 56\% | 1.94\% | 3.50\% |
| 26 | 234 |  | 26,202,737 |  | 26,738,007 |  | 27,119,833 | 58\% | 2.04\% | 3.50\% |
| 27 | 151 |  | 17,096,948 |  | 17,476,797 |  | 17,695,341 | 63\% | 2.22\% | 3.50\% |
| 28 | 126 |  | 14,438,519 |  | 14,854,149 |  | 14,943,867 | 82\% | 2.88\% | 3.50\% |
| 29 | 91 |  | 10,585,999 |  | 10,905,999 |  | 10,956,509 | 86\% | 3.02\% | 3.50\% |
| 30+ | 73 |  | 8,524,423 |  | 8,741,858 |  | 8,822,778 | 73\% | 2.55\% | 3.50\% |
| Total | 32,175 |  | 2,734,145,113 |  | 2,914,981,599 |  | 2,937,895,697 | 89\% | 6.61\% | 7.45\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

TABLE 12B 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Total Salary BOY |  | Estimated Actual Merit Salary EOY |  | Expected Merit Salary EOY |  | Actual / Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 252 | \$ | 10,840,724 | \$ | 12,619,039 | \$ | 11,979,000 | 156\% | 16.40\% | 10.50\% |
| 1 | 1,263 |  | 54,727,324 |  | 58,038,559 |  | 59,926,420 | 64\% | 6.05\% | 9.50\% |
| 2 | 1,509 |  | 73,101,162 |  | 79,477,837 |  | 79,314,761 | 103\% | 8.72\% | 8.50\% |
| 3 | 1,859 |  | 101,486,472 |  | 108,683,213 |  | 109,097,957 | 95\% | 7.09\% | 7.50\% |
| 4 | 2,319 |  | 140,772,976 |  | 170,602,241 |  | 204,824,680 | 47\% | 21.19\% | 45.50\% |
| 5 | 2,055 |  | 154,640,238 |  | 174,695,815 |  | 155,722,720 | 1853\% | 12.97\% | 0.70\% |
| 6 | 1,650 |  | 141,729,895 |  | 144,799,328 |  | 143,005,464 | 241\% | 2.17\% | 0.90\% |
| 7 | 1,532 |  | 133,832,399 |  | 135,953,291 |  | 135,304,555 | 144\% | 1.58\% | 1.10\% |
| 8 | 1,262 |  | 108,242,511 |  | 109,295,513 |  | 109,649,664 | 75\% | 0.97\% | 1.30\% |
| 9 | 1,141 |  | 98,228,980 |  | 100,135,290 |  | 100,881,162 | 72\% | 1.94\% | 2.70\% |
| 10 | 1,304 |  | 116,956,280 |  | 118,645,272 |  | 118,710,624 | 96\% | 1.44\% | 1.50\% |
| 11 | 1,134 |  | 104,686,006 |  | 105,713,302 |  | 106,151,610 | 70\% | 0.98\% | 1.40\% |
| 12 | 1,363 |  | 126,090,359 |  | 127,139,047 |  | 127,729,534 | 64\% | 0.83\% | 1.30\% |
| 13 | 1,374 |  | 128,938,131 |  | 129,462,564 |  | 130,485,389 | 34\% | 0.41\% | 1.20\% |
| 14 | 1,260 |  | 121,745,427 |  | 123,217,596 |  | 124,667,317 | 50\% | 1.21\% | 2.40\% |
| 15 | 1,120 |  | 111,031,869 |  | 112,073,753 |  | 112,142,188 | 94\% | 0.94\% | 1.00\% |
| 16 | 664 |  | 66,069,072 |  | 66,608,865 |  | 66,663,694 | 91\% | 0.82\% | 0.90\% |
| 17 | 415 |  | 40,119,129 |  | 40,369,650 |  | 40,440,082 | 78\% | 0.62\% | 0.80\% |
| 18 | 633 |  | 60,505,479 |  | 61,089,155 |  | 60,929,017 | 138\% | 0.96\% | 0.70\% |
| 19 | 1,221 |  | 117,684,809 |  | 118,907,745 |  | 119,920,820 | 55\% | 1.04\% | 1.90\% |
| 20 | 1,348 |  | 134,414,704 |  | 135,397,549 |  | 135,086,778 | 146\% | 0.73\% | 0.50\% |
| 21 | 1,329 |  | 137,977,558 |  | 138,379,618 |  | 138,529,468 | 73\% | 0.29\% | 0.40\% |
| 22 | 1,363 |  | 142,636,534 |  | 142,549,609 |  | 143,064,444 | -20\% | -0.06\% | 0.30\% |
| 23 | 978 |  | 104,305,583 |  | 104,542,823 |  | 104,514,194 | 114\% | 0.23\% | 0.20\% |
| 24 | 711 |  | 77,584,667 |  | 77,777,972 |  | 77,662,252 | 249\% | 0.25\% | 0.10\% |
| 25 | 441 |  | 48,948,199 |  | 48,884,682 |  | 48,948,199 |  | -0.13\% | 0.00\% |
| 26 | 234 |  | 26,202,737 |  | 26,111,091 |  | 26,202,737 |  | -0.35\% | 0.00\% |
| 27 | 151 |  | 17,096,948 |  | 17,059,450 |  | 17,096,948 |  | -0.22\% | 0.00\% |
| 28 | 126 |  | 14,438,519 |  | 14,436,392 |  | 14,438,519 |  | -0.01\% | 0.00\% |
| 29 | 91 |  | 10,585,999 |  | 10,564,567 |  | 10,585,999 |  | -0.20\% | 0.00\% |
| 30+ | 73 |  | 8,524,423 |  | 8,524,423 |  | 8,524,423 |  | 0.00\% | 0.00\% |
| Total | 32,175 |  | 2,734,145,113 |  | 2,821,755,250 |  | 842,200,618 | 81\% | 3.20\% | 3.95\% |

The rates for expected merit salary increases are based on actual rates of increase for total salary, adjusted for inflation of $1.71 \%$. Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS
MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS
MEN AND WOMEN

TABLE 12B 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Total Salary BOY |  | Estimated Actual <br> Merit Salary EOY |  | Proposed Merit Salary EOY |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 252 | \$ | 10,840,724 | \$ | 12,619,039 | \$ | 11,979,000 | 156\% | 16.40\% | 10.50\% |
| 1 | 1,263 |  | 54,727,324 |  | 58,038,559 |  | 59,926,420 | 64\% | 6.05\% | 9.50\% |
| 2 | 1,509 |  | 73,101,162 |  | 79,477,837 |  | 79,314,761 | 103\% | 8.72\% | 8.50\% |
| 3 | 1,859 |  | 101,486,472 |  | 108,683,213 |  | 109,097,957 | 95\% | 7.09\% | 7.50\% |
| 4 | 2,319 |  | 140,772,976 |  | 170,602,241 |  | 194,266,707 | 56\% | 21.19\% | 38.00\% |
| 5 | 2,055 |  | 154,640,238 |  | 174,695,815 |  | 155,722,720 | 1853\% | 12.97\% | 0.70\% |
| 6 | 1,650 |  | 141,729,895 |  | 144,799,328 |  | 143,005,464 | 241\% | 2.17\% | 0.90\% |
| 7 | 1,532 |  | 133,832,399 |  | 135,953,291 |  | 135,304,555 | 144\% | 1.58\% | 1.10\% |
| 8 | 1,262 |  | 108,242,511 |  | 109,295,513 |  | 109,649,664 | 75\% | 0.97\% | 1.30\% |
| 9 | 1,141 |  | 98,228,980 |  | 100,135,290 |  | 100,390,018 | 88\% | 1.94\% | 2.20\% |
| 10 | 1,304 |  | 116,956,280 |  | 118,645,272 |  | 118,710,624 | 96\% | 1.44\% | 1.50\% |
| 11 | 1,134 |  | 104,686,006 |  | 105,713,302 |  | 105,732,866 | 98\% | 0.98\% | 1.00\% |
| 12 | 1,363 |  | 126,090,359 |  | 127,139,047 |  | 127,351,263 | 83\% | 0.83\% | 1.00\% |
| 13 | 1,374 |  | 128,938,131 |  | 129,462,564 |  | 130,227,512 | 41\% | 0.41\% | 1.00\% |
| 14 | 1,260 |  | 121,745,427 |  | 123,217,596 |  | 123,571,608 | 81\% | 1.21\% | 1.50\% |
| 15 | 1,120 |  | 111,031,869 |  | 112,073,753 |  | 112,142,188 | 94\% | 0.94\% | 1.00\% |
| 16 | 664 |  | 66,069,072 |  | 66,608,865 |  | 66,663,694 | 91\% | 0.82\% | 0.90\% |
| 17 | 415 |  | 40,119,129 |  | 40,369,650 |  | 40,440,082 | 78\% | 0.62\% | 0.80\% |
| 18 | 633 |  | 60,505,479 |  | 61,089,155 |  | 60,929,017 | 138\% | 0.96\% | 0.70\% |
| 19 | 1,221 |  | 117,684,809 |  | 118,907,745 |  | 119,920,820 | 55\% | 1.04\% | 1.90\% |
| 20 | 1,348 |  | 134,414,704 |  | 135,397,549 |  | 135,086,778 | 146\% | 0.73\% | 0.50\% |
| 21 | 1,329 |  | 137,977,558 |  | 138,379,618 |  | 138,529,468 | 73\% | 0.29\% | 0.40\% |
| 22 | 1,363 |  | 142,636,534 |  | 142,549,609 |  | 143,064,444 | -20\% | -0.06\% | 0.30\% |
| 23 | 978 |  | 104,305,583 |  | 104,542,823 |  | 104,514,194 | 114\% | 0.23\% | 0.20\% |
| 24 | 711 |  | 77,584,667 |  | 77,777,972 |  | 77,662,252 | 249\% | 0.25\% | 0.10\% |
| 25 | 441 |  | 48,948,199 |  | 48,884,682 |  | 48,948,199 |  | -0.13\% | 0.00\% |
| 26 | 234 |  | 26,202,737 |  | 26,111,091 |  | 26,202,737 |  | -0.35\% | 0.00\% |
| 27 | 151 |  | 17,096,948 |  | 17,059,450 |  | 17,096,948 |  | -0.22\% | 0.00\% |
| 28 | 126 |  | 14,438,519 |  | 14,436,392 |  | 14,438,519 |  | -0.01\% | 0.00\% |
| 29 | 91 |  | 10,585,999 |  | 10,564,567 |  | 10,585,999 |  | -0.20\% | 0.00\% |
| $30+$ | 73 |  | 8,524,423 |  | 8,524,423 |  | 8,524,423 |  | 0.00\% | 0.00\% |
| Total | 32,175 |  | 2,734,145,113 |  | 2,821,755,250 |  | 829,000,900 | 92\% | 3.20\% | 3.47\% |

[^10]
## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

10-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Total Salary BOY |  | Actual Salary EOY |  | $\begin{gathered} \text { Expected Salary } \\ \text { EOY } \\ \hline \end{gathered}$ |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 1,610 | \$ | 56,522,042 | \$ | 69,228,388 | \$ | 64,435,128 | 161\% | 22.48\% | 14.00\% |
| 1 | 3,713 |  | 151,831,831 |  | 170,247,948 |  | 171,569,969 | 93\% | 12.13\% | 13.00\% |
| 2 | 4,080 |  | 184,189,804 |  | 211,067,569 |  | 206,292,580 | 122\% | 14.59\% | 12.00\% |
| 3 | 4,240 |  | 215,927,002 |  | 240,452,933 |  | 239,678,972 | 103\% | 11.36\% | 11.00\% |
| 4 | 4,310 |  | 240,780,889 |  | 304,335,502 |  | 358,763,525 | 54\% | 26.40\% | 49.00\% |
| 5 | 3,786 |  | 257,982,775 |  | 300,622,014 |  | 268,818,052 | 394\% | 16.53\% | 4.20\% |
| 6 | 3,910 |  | 298,347,720 |  | 313,308,152 |  | 311,475,020 | 114\% | 5.01\% | 4.40\% |
| 7 | 3,855 |  | 299,391,116 |  | 313,925,703 |  | 313,163,107 | 106\% | 4.85\% | 4.60\% |
| 8 | 3,292 |  | 257,321,136 |  | 270,135,433 |  | 269,672,551 | 104\% | 4.98\% | 4.80\% |
| 9 | 2,877 |  | 229,520,970 |  | 242,994,921 |  | 243,751,270 | 95\% | 5.87\% | 6.20\% |
| 10 | 2,750 |  | 229,932,373 |  | 241,160,045 |  | 241,428,992 | 98\% | 4.88\% | 5.00\% |
| 11 | 2,569 |  | 219,696,790 |  | 229,115,291 |  | 230,461,933 | 87\% | 4.29\% | 4.90\% |
| 12 | 2,648 |  | 224,043,362 |  | 233,258,822 |  | 234,797,443 | 86\% | 4.11\% | 4.80\% |
| 13 | 3,373 |  | 273,813,191 |  | 286,013,937 |  | 286,682,411 | 95\% | 4.46\% | 4.70\% |
| 14 | 3,885 |  | 314,392,757 |  | 331,502,372 |  | 332,941,930 | 92\% | 5.44\% | 5.90\% |
| 15 | 4,341 |  | 358,937,284 |  | 375,617,761 |  | 375,089,462 | 103\% | 4.65\% | 4.50\% |
| 16 | 4,847 |  | 395,976,109 |  | 413,388,802 |  | 413,399,058 | 100\% | 4.40\% | 4.40\% |
| 17 | 4,826 |  | 398,470,623 |  | 419,395,898 |  | 415,604,860 | 122\% | 5.25\% | 4.30\% |
| 18 | 5,047 |  | 428,568,913 |  | 448,982,662 |  | 446,568,807 | 113\% | 4.76\% | 4.20\% |
| 19 | 3,714 |  | 331,654,039 |  | 350,089,060 |  | 349,563,357 | 103\% | 5.56\% | 5.40\% |
| 20 | 2,698 |  | 255,012,038 |  | 268,447,002 |  | 265,212,520 | 132\% | 5.27\% | 4.00\% |
| 21 | 2,325 |  | 229,855,627 |  | 238,840,868 |  | 238,819,996 | 100\% | 3.91\% | 3.90\% |
| 22 | 1,969 |  | 198,944,571 |  | 205,324,930 |  | 206,504,465 | 84\% | 3.21\% | 3.80\% |
| 23 | 1,423 |  | 146,429,235 |  | 152,026,903 |  | 151,847,117 | 103\% | 3.82\% | 3.70\% |
| 24 | 985 |  | 103,731,001 |  | 106,947,680 |  | 107,465,317 | 86\% | 3.10\% | 3.60\% |
| 25 | 625 |  | 67,072,684 |  | 68,869,042 |  | 69,420,228 | 77\% | 2.68\% | 3.50\% |
| 26 | 363 |  | 39,145,288 |  | 40,198,468 |  | 40,515,373 | 77\% | 2.69\% | 3.50\% |
| 27 | 253 |  | 27,092,860 |  | 27,860,401 |  | 28,041,110 | 81\% | 2.83\% | 3.50\% |
| 28 | 183 |  | 19,903,395 |  | 20,613,860 |  | 20,600,014 | 102\% | 3.57\% | 3.50\% |
| 29 | 128 |  | 14,029,916 |  | 14,493,720 |  | 14,520,963 | 94\% | 3.31\% | 3.50\% |
| 30+ | 109 |  | 11,642,398 |  | 12,005,571 |  | 12,049,882 | 89\% | 3.12\% | 3.50\% |
| Total | 84,734 |  | 6,480,159,739 |  | 6,920,471,658 |  | 6,929,155,410 | 98\% | 6.79\% | 6.93\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

## TABLE 12A

| Service | Life Years Exposed | Total Salary BOY |  | Actual Salary EOY |  | $\begin{gathered} \text { Proposed Salary } \\ \text { EOY } \end{gathered}$ |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 1,610 | \$ | 56,522,042 | \$ | 69,228,388 | \$ | 64,717,738 | 155\% | 22.48\% | 14.50\% |
| 1 | 3,713 |  | 151,831,831 |  | 170,247,948 |  | 172,329,128 | 90\% | 12.13\% | 13.50\% |
| 2 | 4,080 |  | 184,189,804 |  | 211,067,569 |  | 207,213,530 | 117\% | 14.59\% | 12.50\% |
| 3 | 4,240 |  | 215,927,002 |  | 240,452,933 |  | 240,758,607 | 99\% | 11.36\% | 11.50\% |
| 4 | 4,310 |  | 240,780,889 |  | 304,335,502 |  | 341,908,862 | 63\% | 26.40\% | 42.00\% |
| 5 | 3,786 |  | 257,982,775 |  | 300,622,014 |  | 270,107,965 | 352\% | 16.53\% | 4.70\% |
| 6 | 3,910 |  | 298,347,720 |  | 313,308,152 |  | 312,966,758 | 102\% | 5.01\% | 4.90\% |
| 7 | 3,855 |  | 299,391,116 |  | 313,925,703 |  | 314,660,063 | 95\% | 4.85\% | 5.10\% |
| 8 | 3,292 |  | 257,321,136 |  | 270,135,433 |  | 270,959,156 | 94\% | 4.98\% | 5.30\% |
| 9 | 2,877 |  | 229,520,970 |  | 242,994,921 |  | 243,751,270 | 95\% | 5.87\% | 6.20\% |
| 10 | 2,750 |  | 229,932,373 |  | 241,160,045 |  | 242,578,654 | 89\% | 4.88\% | 5.50\% |
| 11 | 2,569 |  | 219,696,790 |  | 229,115,291 |  | 230,681,630 | 86\% | 4.29\% | 5.00\% |
| 12 | 2,648 |  | 224,043,362 |  | 233,258,822 |  | 235,245,530 | 82\% | 4.11\% | 5.00\% |
| 13 | 3,373 |  | 273,813,191 |  | 286,013,937 |  | 287,503,851 | 89\% | 4.46\% | 5.00\% |
| 14 | 3,885 |  | 314,392,757 |  | 331,502,372 |  | 331,684,359 | 99\% | 5.44\% | 5.50\% |
| 15 | 4,341 |  | 358,937,284 |  | 375,617,761 |  | 376,884,148 | 93\% | 4.65\% | 5.00\% |
| 16 | 4,847 |  | 395,976,109 |  | 413,388,802 |  | 415,378,938 | 90\% | 4.40\% | 4.90\% |
| 17 | 4,826 |  | 398,470,623 |  | 419,395,898 |  | 417,597,213 | 109\% | 5.25\% | 4.80\% |
| 18 | 5,047 |  | 428,568,913 |  | 448,982,662 |  | 448,711,652 | 101\% | 4.76\% | 4.70\% |
| 19 | 3,714 |  | 331,654,039 |  | 350,089,060 |  | 351,221,627 | 94\% | 5.56\% | 5.90\% |
| 20 | 2,698 |  | 255,012,038 |  | 268,447,002 |  | 266,487,580 | 117\% | 5.27\% | 4.50\% |
| 21 | 2,325 |  | 229,855,627 |  | 238,840,868 |  | 239,969,275 | 89\% | 3.91\% | 4.40\% |
| 22 | 1,969 |  | 198,944,571 |  | 205,324,930 |  | 207,499,188 | 75\% | 3.21\% | 4.30\% |
| 23 | 1,423 |  | 146,429,235 |  | 152,026,903 |  | 152,579,263 | 91\% | 3.82\% | 4.20\% |
| 24 | 985 |  | 103,731,001 |  | 106,947,680 |  | 107,983,972 | 76\% | 3.10\% | 4.10\% |
| 25 | 625 |  | 67,072,684 |  | 68,869,042 |  | 69,755,591 | 67\% | 2.68\% | 4.00\% |
| 26 | 363 |  | 39,145,288 |  | 40,198,468 |  | 40,711,100 | 67\% | 2.69\% | 4.00\% |
| 27 | 253 |  | 27,092,860 |  | 27,860,401 |  | 28,176,574 | 71\% | 2.83\% | 4.00\% |
| 28 | 183 |  | 19,903,395 |  | 20,613,860 |  | 20,699,531 | 89\% | 3.57\% | 4.00\% |
| 29 | 128 |  | 14,029,916 |  | 14,493,720 |  | 14,591,113 | 83\% | 3.31\% | 4.00\% |
| 30+ | 109 |  | 11,642,398 |  | 12,005,571 |  | 12,108,094 | 78\% | 3.12\% | 4.00\% |
| Total | 84,734 |  | 6,480,159,739 |  | 6,920,471,658 |  | 6,937,421,959 | 96\% | 6.79\% | 7.06\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

TABLE 12B
10-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Total Salary BOY |  | Estimated Actual <br> Merit Salary EOY |  | Expected Merit Salary EOY |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 1,610 | \$ | 56,522,042 | \$ | 65,793,930 | \$ | 62,456,856 | 156\% | 16.40\% | 10.50\% |
| 1 | 3,713 |  | 151,831,831 |  | 161,018,301 |  | 166,255,855 | 64\% | 6.05\% | 9.50\% |
| 2 | 4,080 |  | 184,189,804 |  | 200,256,833 |  | 199,845,937 | 103\% | 8.72\% | 8.50\% |
| 3 | 4,240 |  | 215,927,002 |  | 231,239,099 |  | 232,121,527 | 95\% | 7.09\% | 7.50\% |
| 4 | 4,310 |  | 240,780,889 |  | 291,801,455 |  | 350,336,193 | 47\% | 21.19\% | 45.50\% |
| 5 | 3,786 |  | 257,982,775 |  | 291,441,036 |  | 259,788,654 | 1853\% | 12.97\% | 0.70\% |
| 6 | 3,910 |  | 298,347,720 |  | 304,809,012 |  | 301,032,849 | 241\% | 2.17\% | 0.90\% |
| 7 | 3,855 |  | 299,391,116 |  | 304,135,679 |  | 302,684,418 | 144\% | 1.58\% | 1.10\% |
| 8 | 3,292 |  | 257,321,136 |  | 259,824,401 |  | 260,666,311 | 75\% | 0.97\% | 1.30\% |
| 9 | 2,877 |  | 229,520,970 |  | 233,975,237 |  | 235,718,036 | 72\% | 1.94\% | 2.70\% |
| 10 | 2,750 |  | 229,932,373 |  | 233,252,879 |  | 233,381,359 | 96\% | 1.44\% | 1.50\% |
| 11 | 2,569 |  | 219,696,790 |  | 221,852,699 |  | 222,772,545 | 70\% | 0.98\% | 1.40\% |
| 12 | 2,648 |  | 224,043,362 |  | 225,906,721 |  | 226,955,926 | 64\% | 0.83\% | 1.30\% |
| 13 | 3,373 |  | 273,813,191 |  | 274,926,877 |  | 277,098,949 | 34\% | 0.41\% | 1.20\% |
| 14 | 3,885 |  | 314,392,757 |  | 318,194,455 |  | 321,938,183 | 50\% | 1.21\% | 2.40\% |
| 15 | 4,341 |  | 358,937,284 |  | 362,305,424 |  | 362,526,657 | 94\% | 0.94\% | 1.00\% |
| 16 | 4,847 |  | 395,976,109 |  | 399,211,286 |  | 399,539,894 | 91\% | 0.82\% | 0.90\% |
| 17 | 4,826 |  | 398,470,623 |  | 400,958,845 |  | 401,658,388 | 78\% | 0.62\% | 0.80\% |
| 18 | 5,047 |  | 428,568,913 |  | 432,703,173 |  | 431,568,895 | 138\% | 0.96\% | 0.70\% |
| 19 | 3,714 |  | 331,654,039 |  | 335,100,463 |  | 337,955,466 | 55\% | 1.04\% | 1.90\% |
| 20 | 2,698 |  | 255,012,038 |  | 256,876,694 |  | 256,287,098 | 146\% | 0.73\% | 0.50\% |
| 21 | 2,325 |  | 229,855,627 |  | 230,525,415 |  | 230,775,050 | 73\% | 0.29\% | 0.40\% |
| 22 | 1,969 |  | 198,944,571 |  | 198,823,331 |  | 199,541,405 | -20\% | -0.06\% | 0.30\% |
| 23 | 1,423 |  | 146,429,235 |  | 146,762,284 |  | 146,722,093 | 114\% | 0.23\% | 0.20\% |
| 24 | 985 |  | 103,731,001 |  | 103,989,450 |  | 103,834,732 | 249\% | 0.25\% | 0.10\% |
| 25 | 625 |  | 67,072,684 |  | 66,985,648 |  | 67,072,684 |  | -0.13\% | 0.00\% |
| 26 | 363 |  | 39,145,288 |  | 39,008,374 |  | 39,145,288 |  | -0.35\% | 0.00\% |
| 27 | 253 |  | 27,092,860 |  | 27,033,439 |  | 27,092,860 |  | -0.22\% | 0.00\% |
| 28 | 183 |  | 19,903,395 |  | 19,900,462 |  | 19,903,395 |  | -0.01\% | 0.00\% |
| 29 | 128 |  | 14,029,916 |  | 14,001,511 |  | 14,029,916 |  | -0.20\% | 0.00\% |
| 30+ | 109 |  | 11,642,398 |  | 11,642,398 |  | 11,642,398 |  | 0.00\% | 0.00\% |
| Total | 84,734 |  | 6,480,159,739 |  | 6,664,256,813 |  | 702,349,819 | 83\% | 2.84\% | 3.43\% |

The rates for expected merit salary increases are based on actual rates of increase for total salary, adjusted for inflation of $2.43 \%$.
Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

TABLE 12B

| Service | Life Years Exposed | Total Salary BOY |  | Estimated Actual <br> Merit Salary EOY |  | Proposed Merit Salary EOY |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 1,610 | \$ | 56,522,042 | \$ | 65,793,930 | \$ | 62,456,856 | 156\% | 16.40\% | 10.50\% |
| 1 | 3,713 |  | 151,831,831 |  | 161,018,301 |  | 166,255,855 | 64\% | 6.05\% | 9.50\% |
| 2 | 4,080 |  | 184,189,804 |  | 200,256,833 |  | 199,845,937 | 103\% | 8.72\% | 8.50\% |
| 3 | 4,240 |  | 215,927,002 |  | 231,239,099 |  | 232,121,527 | 95\% | 7.09\% | 7.50\% |
| 4 | 4,310 |  | 240,780,889 |  | 291,801,455 |  | 332,277,627 | 56\% | 21.19\% | 38.00\% |
| 5 | 3,786 |  | 257,982,775 |  | 291,441,036 |  | 259,788,654 | 1853\% | 12.97\% | 0.70\% |
| 6 | 3,910 |  | 298,347,720 |  | 304,809,012 |  | 301,032,849 | 241\% | 2.17\% | 0.90\% |
| 7 | 3,855 |  | 299,391,116 |  | 304,135,679 |  | 302,684,418 | 144\% | 1.58\% | 1.10\% |
| 8 | 3,292 |  | 257,321,136 |  | 259,824,401 |  | 260,666,311 | 75\% | 0.97\% | 1.30\% |
| 9 | 2,877 |  | 229,520,970 |  | 233,975,237 |  | 234,570,431 | 88\% | 1.94\% | 2.20\% |
| 10 | 2,750 |  | 229,932,373 |  | 233,252,879 |  | 233,381,359 | 96\% | 1.44\% | 1.50\% |
| 11 | 2,569 |  | 219,696,790 |  | 221,852,699 |  | 221,893,758 | 98\% | 0.98\% | 1.00\% |
| 12 | 2,648 |  | 224,043,362 |  | 225,906,721 |  | 226,283,796 | 83\% | 0.83\% | 1.00\% |
| 13 | 3,373 |  | 273,813,191 |  | 274,926,877 |  | 276,551,323 | 41\% | 0.41\% | 1.00\% |
| 14 | 3,885 |  | 314,392,757 |  | 318,194,455 |  | 319,108,648 | 81\% | 1.21\% | 1.50\% |
| 15 | 4,341 |  | 358,937,284 |  | 362,305,424 |  | 362,526,657 | 94\% | 0.94\% | 1.00\% |
| 16 | 4,847 |  | 395,976,109 |  | 399,211,286 |  | 399,539,894 | 91\% | 0.82\% | 0.90\% |
| 17 | 4,826 |  | 398,470,623 |  | 400,958,845 |  | 401,658,388 | 78\% | 0.62\% | 0.80\% |
| 18 | 5,047 |  | 428,568,913 |  | 432,703,173 |  | 431,568,895 | 138\% | 0.96\% | 0.70\% |
| 19 | 3,714 |  | 331,654,039 |  | 335,100,463 |  | 337,955,466 | 55\% | 1.04\% | 1.90\% |
| 20 | 2,698 |  | 255,012,038 |  | 256,876,694 |  | 256,287,098 | 146\% | 0.73\% | 0.50\% |
| 21 | 2,325 |  | 229,855,627 |  | 230,525,415 |  | 230,775,050 | 73\% | 0.29\% | 0.40\% |
| 22 | 1,969 |  | 198,944,571 |  | 198,823,331 |  | 199,541,405 | -20\% | -0.06\% | 0.30\% |
| 23 | 1,423 |  | 146,429,235 |  | 146,762,284 |  | 146,722,093 | 114\% | 0.23\% | 0.20\% |
| 24 | 985 |  | 103,731,001 |  | 103,989,450 |  | 103,834,732 | 249\% | 0.25\% | 0.10\% |
| 25 | 625 |  | 67,072,684 |  | 66,985,648 |  | 67,072,684 |  | -0.13\% | 0.00\% |
| 26 | 363 |  | 39,145,288 |  | 39,008,374 |  | 39,145,288 |  | -0.35\% | 0.00\% |
| 27 | 253 |  | 27,092,860 |  | 27,033,439 |  | 27,092,860 |  | -0.22\% | 0.00\% |
| 28 | 183 |  | 19,903,395 |  | 19,900,462 |  | 19,903,395 |  | -0.01\% | 0.00\% |
| 29 | 128 |  | 14,029,916 |  | 14,001,511 |  | 14,029,916 |  | -0.20\% | 0.00\% |
| 30+ | 109 |  | 11,642,398 |  | 11,642,398 |  | 11,642,398 |  | 0.00\% | 0.00\% |
| Total | 84,734 |  | 6,480,159,739 |  | 6,664,256,813 |  | 6,678,215,569 | 93\% | 2.84\% | 3.06\% |

Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS

TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS
MEN AND WOMEN

| Plan Year | TABLE 12C | Total Salary BOY |  | Actual Salary EOY |  | $\begin{gathered} \text { Expected Salary } \\ \text { EOY } \\ \hline \end{gathered}$ |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending June 30, | Life Years Exposed |  |  | Actual / <br> Expected | $\begin{aligned} & \hline \text { Actual } \\ & (\mathbf{4}) /(\mathbf{3}) \\ & \hline \end{aligned}$ |  |  | Expected $(5) /(3)$ |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (5) | (6) | (7) |
| 2004 | 9,292 | \$ | 613,260,158 | \$ | 647,260,226 | \$ | 652,491,406 | 87\% | 5.54\% | 6.40\% |
| 2005 | 8,969 |  | 608,088,623 |  | 670,226,657 |  | 647,269,365 | 159\% | 10.22\% | 6.44\% |
| 2006 | 8,648 |  | 627,061,449 |  | 655,282,873 |  | 669,675,469 | 66\% | 4.50\% | 6.80\% |
| 2007 | 8,552 |  | 618,942,911 |  | 662,637,551 |  | 659,685,175 | 107\% | 7.06\% | 6.58\% |
| 2008 | 8,585 |  | 634,148,613 |  | 675,552,927 |  | 671,234,330 | 112\% | 6.53\% | 5.85\% |
| 2009 | 8,621 |  | 654,138,066 |  | 704,642,605 |  | 700,866,042 | 108\% | 7.72\% | 7.14\% |
| 2010 | 8,616 |  | 676,542,044 |  | 732,447,410 |  | 731,775,475 | 101\% | 8.26\% | 8.16\% |
| 2011 | 8,143 |  | 676,270,590 |  | 749,398,794 |  | 724,355,196 | 152\% | 10.81\% | 7.11\% |
| 2012 | 7,807 |  | 701,151,324 |  | 725,076,734 |  | 750,545,103 | 48\% | 3.41\% | 7.04\% |
| 2013 | 7,725 |  | 692,976,246 |  | 721,167,241 |  | 744,462,842 | 55\% | 4.07\% | 7.43\% |
| Total | 84,958 |  | 6,502,580,024 |  | 6,943,693,018 |  | 6,952,360,405 | 98\% | 6.78\% | 6.92\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS OVERTIME PAY EXPERIENCE FOR ALL YEARS MEN AND WOMEN

TABLE 13A

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 252 | \$ | 9,855,204 | \$ | 596,746 | \$ | 985,520 | 61\% | 6.06\% | 10.00\% |
| 1 | 1,197 |  | 47,190,671 |  | 4,757,006 |  | 4,719,067 | 101\% | 10.08\% | 10.00\% |
| 2 | 1,540 |  | 67,536,762 |  | 7,938,564 |  | 6,753,676 | 118\% | 11.75\% | 10.00\% |
| 3 | 1,841 |  | 91,195,059 |  | 11,257,776 |  | 9,119,506 | 123\% | 12.34\% | 10.00\% |
| 4 | 2,320 |  | 127,631,157 |  | 16,738,509 |  | 12,763,116 | 131\% | 13.11\% | 10.00\% |
| 5 | 2,065 |  | 140,657,951 |  | 16,864,557 |  | 14,065,795 | 120\% | 11.99\% | 10.00\% |
| 6 | 1,684 |  | 131,276,215 |  | 18,003,266 |  | 13,127,622 | 137\% | 13.71\% | 10.00\% |
| 7 | 1,511 |  | 119,986,560 |  | 18,182,550 |  | 11,998,656 | 152\% | 15.15\% | 10.00\% |
| 8 | 1,244 |  | 97,006,693 |  | 14,066,356 |  | 9,700,669 | 145\% | 14.50\% | 10.00\% |
| 9 | 1,162 |  | 90,977,345 |  | 12,293,926 |  | 9,097,734 | 135\% | 13.51\% | 10.00\% |
| 10 | 1,300 |  | 105,860,571 |  | 15,425,851 |  | 10,586,057 | 146\% | 14.57\% | 10.00\% |
| 11 | 1,150 |  | 96,276,647 |  | 14,414,695 |  | 9,627,665 | 150\% | 14.97\% | 10.00\% |
| 12 | 1,326 |  | 111,587,840 |  | 16,111,898 |  | 11,158,784 | 144\% | 14.44\% | 10.00\% |
| 13 | 1,393 |  | 118,863,280 |  | 17,134,982 |  | 11,886,328 | 144\% | 14.42\% | 10.00\% |
| 14 | 1,281 |  | 112,356,938 |  | 16,223,146 |  | 11,235,694 | 144\% | 14.44\% | 10.00\% |
| 15 | 1,128 |  | 101,511,787 |  | 16,962,928 |  | 10,151,179 | 167\% | 16.71\% | 10.00\% |
| 16 | 662 |  | 59,419,656 |  | 10,654,496 |  | 6,536,162 | 163\% | 17.93\% | 11.00\% |
| 17 | 407 |  | 35,172,321 |  | 6,053,469 |  | 4,220,678 | 143\% | 17.21\% | 12.00\% |
| 18 | 609 |  | 51,481,635 |  | 7,998,843 |  | 6,692,612 | 120\% | 15.54\% | 13.00\% |
| 19 | 1,191 |  | 100,684,320 |  | 17,842,270 |  | 14,095,805 | 127\% | 17.72\% | 14.00\% |
| 20 | 1,372 |  | 118,831,754 |  | 21,317,538 |  | 17,824,763 | 120\% | 17.94\% | 15.00\% |
| 21 | 1,345 |  | 121,159,721 |  | 23,130,071 |  | 18,173,958 | 127\% | 19.09\% | 15.00\% |
| 22 | 1,363 |  | 124,159,803 |  | 25,281,007 |  | 18,623,970 | 136\% | 20.36\% | 15.00\% |
| 23 | 996 |  | 92,102,328 |  | 18,077,075 |  | 13,815,349 | 131\% | 19.63\% | 15.00\% |
| 24 | 710 |  | 67,508,209 |  | 13,355,291 |  | 10,126,231 | 132\% | 19.78\% | 15.00\% |
| 25 | 448 |  | 43,112,945 |  | 9,163,543 |  | 6,466,942 | 142\% | 21.25\% | 15.00\% |
| 26 | 232 |  | 22,597,800 |  | 4,712,432 |  | 3,389,670 | 139\% | 20.85\% | 15.00\% |
| 27 | 156 |  | 15,349,384 |  | 3,052,980 |  | 2,302,408 | 133\% | 19.89\% | 15.00\% |
| 28 | 126 |  | 12,555,234 |  | 2,333,721 |  | 1,883,285 | 124\% | 18.59\% | 15.00\% |
| 29 | 88 |  | 8,945,054 |  | 1,687,673 |  | 1,341,758 | 126\% | 18.87\% | 15.00\% |
| 30 | 75 |  | 7,588,565 |  | 1,447,996 |  | 1,138,285 | 127\% | 19.08\% | 15.00\% |
| 31 | 49 |  | 4,749,122 |  | 1,072,948 |  | 712,368 | 151\% | 22.59\% | 15.00\% |
| 32 | 23 |  | 2,281,834 |  | 467,289 |  | 342,275 | 137\% | 20.48\% | 15.00\% |
| 33 | 13 |  | 1,314,543 |  | 301,420 |  | 197,181 | 153\% | 22.93\% | 15.00\% |
| 34 | 4 |  | 384,583 |  | 92,632 |  | 57,688 | 161\% | 24.09\% | 15.00\% |
| 35 | 3 |  | 276,961 |  | 57,012 |  | 41,544 | 137\% | 20.58\% | 15.00\% |
| 36 | 3 |  | 275,297 |  | 99,163 |  | 41,294 | 240\% | 36.02\% | 15.00\% |
| 37 | 5 |  | 422,695 |  | 139,469 |  | 63,404 | 220\% | 33.00\% | 15.00\% |
| 38 | 4 |  | 372,621 |  | 112,778 |  | 55,893 | 202\% | 30.27\% | 15.00\% |
| 39 | 4 |  | 353,763 |  | 85,982 |  | 53,065 | 162\% | 24.30\% | 15.00\% |
| 40 | 3 |  | 262,062 |  | 52,586 |  | 39,309 | 134\% | 20.07\% | 15.00\% |
| 41 | 1 |  | 87,391 |  | 565 |  | 13,109 | 4\% | 0.65\% | 15.00\% |
| 42 | 1 |  | 87,387 |  | 2,771 |  | 13,108 | 21\% | 3.17\% | 15.00\% |
| 43 | 0 |  | , |  | , |  | , |  |  | 15.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| Total | 32,287 |  | 2,461,307,666 |  | 385,565,776 |  | 285,239,184 | 135\% | 15.67\% | 11.59\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS OVERTIME PAY EXPERIENCE FOR ALL YEARS MEN AND WOMEN

TABLE 13A

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 252 | \$ | 9,855,204 | \$ | 596,746 | \$ | 1,281,176 | 47\% | 6.06\% | 13.00\% |
| 1 | 1,197 |  | 47,190,671 |  | 4,757,006 |  | 6,134,787 | 78\% | 10.08\% | 13.00\% |
| 2 | 1,540 |  | 67,536,762 |  | 7,938,564 |  | 8,779,779 | 90\% | 11.75\% | 13.00\% |
| 3 | 1,841 |  | 91,195,059 |  | 11,257,776 |  | 11,855,358 | 95\% | 12.34\% | 13.00\% |
| 4 | 2,320 |  | 127,631,157 |  | 16,738,509 |  | 16,592,050 | 101\% | 13.11\% | 13.00\% |
| 5 | 2,065 |  | 140,657,951 |  | 16,864,557 |  | 18,285,534 | 92\% | 11.99\% | 13.00\% |
| 6 | 1,684 |  | 131,276,215 |  | 18,003,266 |  | 17,065,908 | 105\% | 13.71\% | 13.00\% |
| 7 | 1,511 |  | 119,986,560 |  | 18,182,550 |  | 15,598,253 | 117\% | 15.15\% | 13.00\% |
| 8 | 1,244 |  | 97,006,693 |  | 14,066,356 |  | 12,610,870 | 112\% | 14.50\% | 13.00\% |
| 9 | 1,162 |  | 90,977,345 |  | 12,293,926 |  | 11,827,055 | 104\% | 13.51\% | 13.00\% |
| 10 | 1,300 |  | 105,860,571 |  | 15,425,851 |  | 13,761,874 | 112\% | 14.57\% | 13.00\% |
| 11 | 1,150 |  | 96,276,647 |  | 14,414,695 |  | 12,515,964 | 115\% | 14.97\% | 13.00\% |
| 12 | 1,326 |  | 111,587,840 |  | 16,111,898 |  | 14,506,419 | 111\% | 14.44\% | 13.00\% |
| 13 | 1,393 |  | 118,863,280 |  | 17,134,982 |  | 15,452,226 | 111\% | 14.42\% | 13.00\% |
| 14 | 1,281 |  | 112,356,938 |  | 16,223,146 |  | 14,606,402 | 111\% | 14.44\% | 13.00\% |
| 15 | 1,128 |  | 101,511,787 |  | 16,962,928 |  | 13,196,532 | 129\% | 16.71\% | 13.00\% |
| 16 | 662 |  | 59,419,656 |  | 10,654,496 |  | 7,724,555 | 138\% | 17.93\% | 13.00\% |
| 17 | 407 |  | 35,172,321 |  | 6,053,469 |  | 4,572,402 | 132\% | 17.21\% | 13.00\% |
| 18 | 609 |  | 51,481,635 |  | 7,998,843 |  | 6,692,612 | 120\% | 15.54\% | 13.00\% |
| 19 | 1,191 |  | 100,684,320 |  | 17,842,270 |  | 13,088,962 | 136\% | 17.72\% | 13.00\% |
| 20 | 1,372 |  | 118,831,754 |  | 21,317,538 |  | 15,448,128 | 138\% | 17.94\% | 13.00\% |
| 21 | 1,345 |  | 121,159,721 |  | 23,130,071 |  | 15,750,764 | 147\% | 19.09\% | 13.00\% |
| 22 | 1,363 |  | 124,159,803 |  | 25,281,007 |  | 16,140,774 | 157\% | 20.36\% | 13.00\% |
| 23 | 996 |  | 92,102,328 |  | 18,077,075 |  | 11,973,303 | 151\% | 19.63\% | 13.00\% |
| 24 | 710 |  | 67,508,209 |  | 13,355,291 |  | 8,776,067 | 152\% | 19.78\% | 13.00\% |
| 25 | 448 |  | 43,112,945 |  | 9,163,543 |  | 5,604,683 | 163\% | 21.25\% | 13.00\% |
| 26 | 232 |  | 22,597,800 |  | 4,712,432 |  | 2,937,714 | 160\% | 20.85\% | 13.00\% |
| 27 | 156 |  | 15,349,384 |  | 3,052,980 |  | 1,995,420 | 153\% | 19.89\% | 13.00\% |
| 28 | 126 |  | 12,555,234 |  | 2,333,721 |  | 1,632,180 | 143\% | 18.59\% | 13.00\% |
| 29 | 88 |  | 8,945,054 |  | 1,687,673 |  | 1,162,857 | 145\% | 18.87\% | 13.00\% |
| 30 | 75 |  | 7,588,565 |  | 1,447,996 |  | 986,513 | 147\% | 19.08\% | 13.00\% |
| 31 | 49 |  | 4,749,122 |  | 1,072,948 |  | 617,386 | 174\% | 22.59\% | 13.00\% |
| 32 | 23 |  | 2,281,834 |  | 467,289 |  | 296,638 | 158\% | 20.48\% | 13.00\% |
| 33 | 13 |  | 1,314,543 |  | 301,420 |  | 170,891 | 176\% | 22.93\% | 13.00\% |
| 34 | 4 |  | 384,583 |  | 92,632 |  | 49,996 | 185\% | 24.09\% | 13.00\% |
| 35 | 3 |  | 276,961 |  | 57,012 |  | 36,005 | 158\% | 20.58\% | 13.00\% |
| 36 | 3 |  | 275,297 |  | 99,163 |  | 35,789 | 277\% | 36.02\% | 13.00\% |
| 37 | 5 |  | 422,695 |  | 139,469 |  | 54,950 | 254\% | 33.00\% | 13.00\% |
| 38 | 4 |  | 372,621 |  | 112,778 |  | 48,441 | 233\% | 30.27\% | 13.00\% |
| 39 | 4 |  | 353,763 |  | 85,982 |  | 45,989 | 187\% | 24.30\% | 13.00\% |
| 40 | 3 |  | 262,062 |  | 52,586 |  | 34,068 | 154\% | 20.07\% | 13.00\% |
| 41 | 1 |  | 87,391 |  | 565 |  | 11,361 | 5\% | 0.65\% | 13.00\% |
| 42 | 1 |  | 87,387 |  | 2,771 |  | 11,360 | 24\% | 3.17\% | 13.00\% |
| 43 | 0 |  | 87,387 |  | 2,77 |  | 1,360 |  |  | 13.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 13.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 13.00\% |
| Total | 32,287 |  | 2,461,307,666 |  | 385,565,776 |  | 319,969,997 | 121\% | 15.67\% | 13.00\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS OVERTIME PAY EXPERIENCE BEFORE SERVICE RETIREMENT MEN AND WOMEN

TABLE 13B 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  | 0.00\% | 10.00\% |
| 1 | 0 |  | - |  | - |  | - |  | 0.00\% | 10.00\% |
| 2 | 1 | \$ | 89,645 | \$ | 26,961 |  | \$ 8,965 | 301\% | 30.08\% | 10.00\% |
| 3 | 0 |  | - |  | - |  | - |  | 0.00\% | 10.00\% |
| 4 | 1 |  | 59,543 |  | 1,818 |  | 5,954 | $31 \%$ | 3.05\% | 10.00\% |
| 5 | 0 |  | - |  | - |  | - |  | 0.00\% | 10.00\% |
| 6 | 0 |  | - |  | - |  | - |  | 0.00\% | 10.00\% |
| 7 | 0 |  | - |  | - |  | - |  | 0.00\% | 10.00\% |
| 8 | 1 |  | 81,797 |  | 13,721 |  | 8,180 | 168\% | 16.77\% | 10.00\% |
| 9 | 0 |  | - |  | - |  | - |  | 0.00\% | 10.00\% |
| 10 | 2 |  | 178,477 |  | 31,959 |  | 17,848 | 179\% | 17.91\% | 10.00\% |
| 11 | 0 |  | - |  | - |  |  |  | 0.00\% | 10.00\% |
| 12 | 1 |  | 87,791 |  | 6,262 |  | 8,779 | 71\% | 7.13\% | 10.00\% |
| 13 | 0 |  | - |  | - |  | - |  | 0.00\% | 10.00\% |
| 14 | 0 |  | - |  | - |  | - |  | 0.00\% | 10.00\% |
| 15 | 0 |  | - |  | - |  | - |  | 0.00\% | 10.00\% |
| 16 | 2 |  | 177,441 |  | 23,970 |  | 19,518 | 123\% | 13.51\% | 11.00\% |
| 17 | 2 |  | 168,407 |  | 4,802 |  | 20,209 | 24\% | 2.85\% | 12.00\% |
| 18 | 4 |  | 358,037 |  | 2,236 |  | 46,545 | 5\% | 0.62\% | 13.00\% |
| 19 | 279 |  | 23,633,811 |  | 2,885,183 |  | 3,308,734 | 87\% | 12.21\% | 14.00\% |
| 20 | 366 |  | 31,338,537 |  | 4,546,052 |  | 4,700,780 | 97\% | 14.51\% | 15.00\% |
| 21 | 258 |  | 22,965,994 |  | 3,966,932 |  | 3,444,899 | 115\% | 17.27\% | 15.00\% |
| 22 | 200 |  | 18,221,029 |  | 3,302,479 |  | 2,733,154 | 121\% | 18.12\% | 15.00\% |
| 23 | 84 |  | 7,653,960 |  | 1,216,180 |  | 1,148,094 | 106\% | 15.89\% | 15.00\% |
| 24 | 122 |  | 11,554,710 |  | 1,898,400 |  | 1,733,206 | 110\% | 16.43\% | 15.00\% |
| 25 | 98 |  | 9,759,102 |  | 1,768,932 |  | 1,463,865 | 121\% | 18.13\% | 15.00\% |
| 26 | 49 |  | 5,008,398 |  | 763,652 |  | 751,260 | 102\% | 15.25\% | 15.00\% |
| 27 | 22 |  | 2,341,969 |  | 246,054 |  | 351,295 | 70\% | 10.51\% | 15.00\% |
| 28 | 14 |  | 1,305,063 |  | 281,878 |  | 195,759 | 144\% | 21.60\% | 15.00\% |
| 29 | 17 |  | 1,877,396 |  | 135,538 |  | 281,609 | 48\% | 7.22\% | 15.00\% |
| 30 | 10 |  | 1,125,210 |  | 116,447 |  | 168,782 | 69\% | 10.35\% | 15.00\% |
| 31 | 8 |  | 1,088,081 |  | 112,109 |  | 163,212 | 69\% | 10.30\% | 15.00\% |
| 32 | 3 |  | 301,074 |  | 98,866 |  | 45,161 | 219\% | 32.84\% | 15.00\% |
| 33 | 2 |  | 225,428 |  | 53,695 |  | 33,814 | 159\% | 23.82\% | 15.00\% |
| 34 | 1 |  | 92,237 |  | 630 |  | 13,836 | 5\% | 0.68\% | 15.00\% |
| 35 | 2 |  | 181,611 |  | 17,138 |  | 27,242 | 63\% | 9.44\% | 15.00\% |
| 36 | 2 |  | 160,671 |  | 28,562 |  | 24,101 | 119\% | 17.78\% | 15.00\% |
| 37 | 0 |  | - |  | - |  | - |  | 0.00\% | 15.00\% |
| 38 | 1 |  | 87,171 |  | 37,994 |  | 13,076 | 291\% | 43.59\% | 15.00\% |
| 39 | 0 |  | 87,17 |  | , |  | , |  | 0.00\% | 15.00\% |
| 40 | 0 |  | - |  | - |  | - |  | 0.00\% | 15.00\% |
| 41 | 0 |  | - |  | - |  | - |  | 0.00\% | 15.00\% |
| 42 | 0 |  | - |  | - |  | - |  | 0.00\% | 15.00\% |
| 43 | 0 |  | - |  | - |  | - |  | 0.00\% | 15.00\% |
| 44 | 0 |  | - |  | - |  | - |  | 0.00\% | 15.00\% |
| 45 | 0 |  | - |  | - |  | - |  | 0.00\% | 15.00\% |
| Total | 1,552 |  | 140,122,590 |  | 21,588,450 |  | 20,737,877 | 104\% | 15.41\% | 14.80\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS OVERTIME PAY EXPERIENCE BEFORE SERVICE RETIREMENT MEN AND WOMEN

TABLE 13B 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual/ <br> Proposed <br> (6) | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  |  | (5) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  | 0.00\% | 14.00\% |
| 1 | 0 |  | - |  | - |  | - |  | 0.00\% | 14.00\% |
| 2 | 1 | \$ | 89,645 | \$ | 26,961 | \$ | 12,550 | 215\% | 30.08\% | 14.00\% |
| 3 | 0 |  | - |  |  |  | - |  | 0.00\% | 14.00\% |
| 4 | 1 |  | 59,543 |  | 1,818 |  | 8,336 | 22\% | 3.05\% | 14.00\% |
| 5 | 0 |  | - |  | - |  | - |  | 0.00\% | 14.00\% |
| 6 | 0 |  | - |  | - |  | - |  | 0.00\% | 14.00\% |
| 7 | 0 |  | - |  | - |  | - |  | 0.00\% | 14.00\% |
| 8 | 1 |  | 81,797 |  | 13,721 |  | 11,452 | 120\% | 16.77\% | 14.00\% |
| 9 | 0 |  | - |  | - |  | - |  | 0.00\% | 14.00\% |
| 10 | 2 |  | 178,477 |  | 31,959 |  | 24,987 | 128\% | 17.91\% | 14.00\% |
| 11 | 0 |  | - |  | - |  | - |  | 0.00\% | 14.00\% |
| 12 | 1 |  | 87,791 |  | 6,262 |  | 12,291 | 51\% | 7.13\% | 14.00\% |
| 13 | 0 |  | - |  | , |  | - |  | 0.00\% | 14.00\% |
| 14 | 0 |  | - |  | - |  | - |  | 0.00\% | 14.00\% |
| 15 | 0 |  | - |  | - |  | - |  | 0.00\% | 14.00\% |
| 16 | 2 |  | 177,441 |  | 23,970 |  | 24,842 | 96\% | 13.51\% | 14.00\% |
| 17 | 2 |  | 168,407 |  | 4,802 |  | 23,577 | 20\% | 2.85\% | 14.00\% |
| 18 | 4 |  | 358,037 |  | 2,236 |  | 50,125 | 4\% | 0.62\% | 14.00\% |
| 19 | 279 |  | 23,633,811 |  | 2,885,183 |  | 3,308,734 | 87\% | 12.21\% | 14.00\% |
| 20 | 366 |  | 31,338,537 |  | 4,546,052 |  | 4,387,395 | 104\% | 14.51\% | 14.00\% |
| 21 | 258 |  | 22,965,994 |  | 3,966,932 |  | 3,215,239 | 123\% | 17.27\% | 14.00\% |
| 22 | 200 |  | 18,221,029 |  | 3,302,479 |  | 2,550,944 | 129\% | 18.12\% | 14.00\% |
| 23 | 84 |  | 7,653,960 |  | 1,216,180 |  | 1,071,554 | 113\% | 15.89\% | 14.00\% |
| 24 | 122 |  | 11,554,710 |  | 1,898,400 |  | 1,617,659 | 117\% | 16.43\% | 14.00\% |
| 25 | 98 |  | 9,759,102 |  | 1,768,932 |  | 1,366,274 | 129\% | 18.13\% | 14.00\% |
| 26 | 49 |  | 5,008,398 |  | 763,652 |  | 701,176 | 109\% | 15.25\% | 14.00\% |
| 27 | 22 |  | 2,341,969 |  | 246,054 |  | 327,876 | 75\% | 10.51\% | 14.00\% |
| 28 | 14 |  | 1,305,063 |  | 281,878 |  | 182,709 | 154\% | 21.60\% | 14.00\% |
| 29 | 17 |  | 1,877,396 |  | 135,538 |  | 262,835 | 52\% | 7.22\% | 14.00\% |
| 30 | 10 |  | 1,125,210 |  | 116,447 |  | 157,529 | 74\% | 10.35\% | 14.00\% |
| 31 | 8 |  | 1,088,081 |  | 112,109 |  | 152,331 | 74\% | 10.30\% | 14.00\% |
| 32 | 3 |  | 301,074 |  | 98,866 |  | 42,150 | 235\% | 32.84\% | 14.00\% |
| 33 | 2 |  | 225,428 |  | 53,695 |  | 31,560 | 170\% | 23.82\% | 14.00\% |
| 34 | 1 |  | 92,237 |  | 630 |  | 12,913 | 5\% | 0.68\% | 14.00\% |
| 35 | 2 |  | 181,611 |  | 17,138 |  | 25,426 | 67\% | 9.44\% | 14.00\% |
| 36 | 2 |  | 160,671 |  | 28,562 |  | 22,494 | 127\% | 17.78\% | 14.00\% |
| 37 | 0 |  | , |  | ,56 |  | - |  | 0.00\% | 14.00\% |
| 38 | 1 |  | 87,171 |  | 37,994 |  | 12,204 | 311\% | 43.59\% | 14.00\% |
| 39 | 0 |  | , |  | , |  | , |  | 0.00\% | 14.00\% |
| 40 | 0 |  | - |  | - |  | - |  | 0.00\% | 14.00\% |
| 41 | 0 |  | - |  | - |  | - |  | 0.00\% | 14.00\% |
| 42 | 0 |  | - |  | - |  | - |  | 0.00\% | 14.00\% |
| 43 | 0 |  | - |  | - |  | - |  | 0.00\% | 14.00\% |
| 44 | 0 |  | - |  | - |  | - |  | 0.00\% | 14.00\% |
| 45 | 0 |  | - |  | - |  | - |  | 0.00\% | 14.00\% |
| Total | 1,552 |  | 140,122,590 |  | 21,588,450 |  | 19,617,163 | 110\% | 15.41\% | 14.00\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS

## OVERTIME PAY EXPERIENCE BEFORE DISABLED RETIREMENT

 MEN AND WOMENTABLE 13C 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  |  | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  |  | 10.00\% |
| 1 | 1 | \$ | 42,018 | \$ | 4,054 | \$ | 4,202 | 96\% | 9.65\% | 10.00\% |
| 2 | 1 |  | 42,196 |  | 1,935 |  | 4,220 | 46\% | 4.59\% | 10.00\% |
| 3 | 1 |  | 50,526 |  | 1,150 |  | 5,053 | 23\% | 2.28\% | 10.00\% |
| 4 | 2 |  | 114,340 |  | 6,715 |  | 11,434 | 59\% | 5.87\% | 10.00\% |
| 5 | 4 |  | 275,420 |  | 9,474 |  | 27,542 | 34\% | 3.44\% | 10.00\% |
| 6 | 5 |  | 389,501 |  | 7,579 |  | 38,950 | 19\% | 1.95\% | 10.00\% |
| 7 | 5 |  | 409,087 |  | 2,932 |  | 40,909 | 7\% | 0.72\% | 10.00\% |
| 8 | 9 |  | 723,645 |  | 56,350 |  | 72,365 | 78\% | 7.79\% | 10.00\% |
| 9 | 9 |  | 757,795 |  | 23,781 |  | 75,779 | 31\% | 3.14\% | 10.00\% |
| 10 | 8 |  | 699,390 |  | 64,111 |  | 69,939 | 92\% | 9.17\% | 10.00\% |
| 11 | 13 |  | 1,084,474 |  | 20,103 |  | 108,447 | 19\% | 1.85\% | 10.00\% |
| 12 | 12 |  | 1,004,931 |  | 53,011 |  | 100,493 | 53\% | 5.28\% | 10.00\% |
| 13 | 11 |  | 988,910 |  | 62,013 |  | 98,891 | 63\% | 6.27\% | 10.00\% |
| 14 | 12 |  | 1,091,095 |  | 92,204 |  | 109,109 | 85\% | 8.45\% | 10.00\% |
| 15 | 12 |  | 1,072,443 |  | 62,750 |  | 107,244 | 59\% | 5.85\% | 10.00\% |
| 16 | 6 |  | 543,923 |  | 35,922 |  | 59,832 | 60\% | 6.60\% | 11.00\% |
| 17 | 1 |  | 108,514 |  | 2,765 |  | 13,022 | 21\% | 2.55\% | 12.00\% |
| 18 | 1 |  | 79,888 |  |  |  | 10,385 |  |  | 13.00\% |
| 19 | 11 |  | 954,525 |  | 93,694 |  | 133,633 | 70\% | 9.82\% | 14.00\% |
| 20 | 16 |  | 1,483,686 |  | 184,860 |  | 222,553 | 83\% | 12.46\% | 15.00\% |
| 21 | 17 |  | 1,496,130 |  | 129,853 |  | 224,420 | 58\% | 8.68\% | 15.00\% |
| 22 | 14 |  | 1,285,141 |  | 83,214 |  | 192,771 | 43\% | 6.48\% | 15.00\% |
| 23 | 7 |  | 631,750 |  | 102,380 |  | 94,762 | 108\% | 16.21\% | 15.00\% |
| 24 | 3 |  | 252,271 |  | 18,187 |  | 37,841 | 48\% | 7.21\% | 15.00\% |
| 25 | 7 |  | 641,763 |  | 79,079 |  | 96,265 | 82\% | 12.32\% | 15.00\% |
| 26 | 2 |  | 179,261 |  | 29,392 |  | 26,889 | 109\% | 16.40\% | 15.00\% |
| 27 | 1 |  | 87,387 |  | 17,760 |  | 13,108 | 135\% | 20.32\% | 15.00\% |
| 28 | 2 |  | 200,350 |  | 32,724 |  | 30,052 | 109\% | 16.33\% | 15.00\% |
| 29 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 30 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 31 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 32 | 1 |  | 87,075 |  | 41,571 |  | 13,061 | 318\% | 47.74\% | 15.00\% |
| 33 | 1 |  | 109,475 |  | 636 |  | 16,421 | 4\% | 0.58\% | 15.00\% |
| 34 | 0 |  |  |  | - |  | - |  |  | 15.00\% |
| 35 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 36 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 37 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 38 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 39 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 40 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 41 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 42 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 43 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| Total | 195 |  | 16,886,909 |  | 1,320,199 |  | 059,593 | 64\% | 7.82\% | 12.20\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS

## OVERTIME PAY EXPERIENCE BEFORE DISABLED RETIREMENT

 MEN AND WOMENTABLE 13C 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  |  | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  |  | 13.00\% |
| 1 | 1 | \$ | 42,018 | \$ | 4,054 | \$ | 5,462 | 74\% | 9.65\% | 13.00\% |
| 2 | 1 |  | 42,196 |  | 1,935 |  | 5,486 | 35\% | 4.59\% | 13.00\% |
| 3 | 1 |  | 50,526 |  | 1,150 |  | 6,568 | 18\% | 2.28\% | 13.00\% |
| 4 | 2 |  | 114,340 |  | 6,715 |  | 14,864 | 45\% | 5.87\% | 13.00\% |
| 5 | 4 |  | 275,420 |  | 9,474 |  | 35,805 | 26\% | 3.44\% | 13.00\% |
| 6 | 5 |  | 389,501 |  | 7,579 |  | 50,635 | 15\% | 1.95\% | 13.00\% |
| 7 | 5 |  | 409,087 |  | 2,932 |  | 53,181 | 6\% | 0.72\% | 13.00\% |
| 8 | 9 |  | 723,645 |  | 56,350 |  | 94,074 | 60\% | 7.79\% | 13.00\% |
| 9 | 9 |  | 757,795 |  | 23,781 |  | 98,513 | 24\% | 3.14\% | 13.00\% |
| 10 | 8 |  | 699,390 |  | 64,111 |  | 90,921 | 71\% | 9.17\% | 13.00\% |
| 11 | 13 |  | 1,084,474 |  | 20,103 |  | 140,982 | 14\% | 1.85\% | 13.00\% |
| 12 | 12 |  | 1,004,931 |  | 53,011 |  | 130,641 | 41\% | 5.28\% | 13.00\% |
| 13 | 11 |  | 988,910 |  | 62,013 |  | 128,558 | 48\% | 6.27\% | 13.00\% |
| 14 | 12 |  | 1,091,095 |  | 92,204 |  | 141,842 | 65\% | 8.45\% | 13.00\% |
| 15 | 12 |  | 1,072,443 |  | 62,750 |  | 139,418 | 45\% | 5.85\% | 13.00\% |
| 16 | 6 |  | 543,923 |  | 35,922 |  | 70,710 | 51\% | 6.60\% | 13.00\% |
| 17 | 1 |  | 108,514 |  | 2,765 |  | 14,107 | 20\% | 2.55\% | 13.00\% |
| 18 | 1 |  | 79,888 |  |  |  | 10,385 |  |  | 13.00\% |
| 19 | 11 |  | 954,525 |  | 93,694 |  | 124,088 | 76\% | 9.82\% | 13.00\% |
| 20 | 16 |  | 1,483,686 |  | 184,860 |  | 192,879 | 96\% | 12.46\% | 13.00\% |
| 21 | 17 |  | 1,496,130 |  | 129,853 |  | 194,497 | 67\% | 8.68\% | 13.00\% |
| 22 | 14 |  | 1,285,141 |  | 83,214 |  | 167,068 | 50\% | 6.48\% | 13.00\% |
| 23 | 7 |  | 631,750 |  | 102,380 |  | 82,127 | 125\% | 16.21\% | 13.00\% |
| 24 | 3 |  | 252,271 |  | 18,187 |  | 32,795 | 55\% | 7.21\% | 13.00\% |
| 25 | 7 |  | 641,763 |  | 79,079 |  | 83,429 | 95\% | 12.32\% | 13.00\% |
| 26 | 2 |  | 179,261 |  | 29,392 |  | 23,304 | 126\% | 16.40\% | 13.00\% |
| 27 | 1 |  | 87,387 |  | 17,760 |  | 11,360 | 156\% | 20.32\% | 13.00\% |
| 28 | 2 |  | 200,350 |  | 32,724 |  | 26,045 | 126\% | 16.33\% | 13.00\% |
| 29 | 0 |  | - |  | - |  | - |  |  | 13.00\% |
| 30 | 0 |  | - |  | - |  | - |  |  | 13.00\% |
| 31 | 0 |  | - |  | - |  | - |  |  | 13.00\% |
| 32 | 1 |  | 87,075 |  | 41,571 |  | 11,320 | 367\% | 47.74\% | 13.00\% |
| 33 | 1 |  | 109,475 |  | 636 |  | 14,232 | 4\% | 0.58\% | 13.00\% |
| 34 | 0 |  |  |  | - |  | , |  |  | 13.00\% |
| 35 | 0 |  | - |  | - |  | - |  |  | 13.00\% |
| 36 | 0 |  | - |  | - |  | - |  |  | 13.00\% |
| 37 | 0 |  | - |  | - |  | - |  |  | 13.00\% |
| 38 | 0 |  | - |  | - |  | - |  |  | 13.00\% |
| 39 | 0 |  | - |  | - |  | - |  |  | 13.00\% |
| 40 | 0 |  | - |  | - |  | - |  |  | 13.00\% |
| 41 | 0 |  | - |  | - |  | - |  |  | 13.00\% |
| 42 | 0 |  | - |  | - |  | - |  |  | 13.00\% |
| 43 | 0 |  | - |  | - |  | - |  |  | 13.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 13.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 13.00\% |
| Total | 195 |  | 16,886,909 |  | 1,320,199 |  | 195,298 | 60\% | 7.82\% | 13.00\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS OVERTIME PAY EXPERIENCE FOR ALL YEARS MEN AND WOMEN

TABLE 13A
10-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 1,625 | \$ | 51,816,726 | \$ | 1,402,146 | \$ | 5,181,673 | 27\% | 2.71\% | 10.00\% |
| 1 | 3,459 |  | 128,624,665 |  | 11,984,091 |  | 12,862,467 | 93\% | 9.32\% | 10.00\% |
| 2 | 4,103 |  | 167,536,632 |  | 19,034,710 |  | 16,753,663 | 114\% | 11.36\% | 10.00\% |
| 3 | 4,266 |  | 195,995,655 |  | 22,826,139 |  | 19,599,565 | 116\% | 11.65\% | 10.00\% |
| 4 | 4,339 |  | 219,346,600 |  | 25,970,103 |  | 21,934,660 | 118\% | 11.84\% | 10.00\% |
| 5 | 3,842 |  | 235,517,204 |  | 25,339,620 |  | 23,551,720 | 108\% | 10.76\% | 10.00\% |
| 6 | 3,907 |  | 270,108,927 |  | 31,831,340 |  | 27,010,893 | 118\% | 11.78\% | 10.00\% |
| 7 | 3,841 |  | 270,694,235 |  | 34,099,746 |  | 27,069,424 | 126\% | 12.60\% | 10.00\% |
| 8 | 3,325 |  | 235,534,938 |  | 28,015,641 |  | 23,553,494 | 119\% | 11.89\% | 10.00\% |
| 9 | 2,932 |  | 211,937,153 |  | 24,531,530 |  | 21,193,715 | 116\% | 11.57\% | 10.00\% |
| 10 | 2,775 |  | 210,290,883 |  | 27,292,587 |  | 21,029,088 | 130\% | 12.98\% | 10.00\% |
| 11 | 2,594 |  | 201,206,591 |  | 27,517,480 |  | 20,120,659 | 137\% | 13.68\% | 10.00\% |
| 12 | 2,625 |  | 202,128,796 |  | 26,460,248 |  | 20,212,880 | 131\% | 13.09\% | 10.00\% |
| 13 | 3,325 |  | 246,461,168 |  | 29,089,826 |  | 24,646,117 | 118\% | 11.80\% | 10.00\% |
| 14 | 3,860 |  | 284,274,416 |  | 32,959,784 |  | 28,427,442 | 116\% | 11.59\% | 10.00\% |
| 15 | 4,291 |  | 322,098,650 |  | 38,819,780 |  | 32,209,865 | 121\% | 12.05\% | 10.00\% |
| 16 | 4,782 |  | 351,589,559 |  | 41,121,198 |  | 38,674,851 | 106\% | 11.70\% | 11.00\% |
| 17 | 4,800 |  | 352,985,674 |  | 44,992,431 |  | 42,358,281 | 106\% | 12.75\% | 12.00\% |
| 18 | 5,037 |  | 377,351,637 |  | 50,473,146 |  | 49,055,713 | 103\% | 13.38\% | 13.00\% |
| 19 | 3,864 |  | 301,230,962 |  | 45,624,368 |  | 42,172,335 | 108\% | 15.15\% | 14.00\% |
| 20 | 2,811 |  | 229,983,985 |  | 38,871,555 |  | 34,497,598 | 113\% | 16.90\% | 15.00\% |
| 21 | 2,378 |  | 203,980,996 |  | 36,424,848 |  | 30,597,149 | 119\% | 17.86\% | 15.00\% |
| 22 | 2,002 |  | 175,568,303 |  | 32,488,142 |  | 26,335,246 | 123\% | 18.50\% | 15.00\% |
| 23 | 1,449 |  | 129,405,145 |  | 22,987,773 |  | 19,410,772 | 118\% | 17.76\% | 15.00\% |
| 24 | 998 |  | 91,366,470 |  | 16,571,123 |  | 13,704,970 | 121\% | 18.14\% | 15.00\% |
| 25 | 642 |  | 59,751,597 |  | 11,356,217 |  | 8,962,739 | 127\% | 19.01\% | 15.00\% |
| 26 | 368 |  | 34,454,963 |  | 6,289,754 |  | 5,168,245 | 122\% | 18.26\% | 15.00\% |
| 27 | 257 |  | 23,966,634 |  | 4,323,623 |  | 3,594,995 | 120\% | 18.04\% | 15.00\% |
| 28 | 184 |  | 17,355,758 |  | 3,097,390 |  | 2,603,364 | 119\% | 17.85\% | 15.00\% |
| 29 | 128 |  | 12,222,678 |  | 2,283,227 |  | 1,833,402 | 125\% | 18.68\% | 15.00\% |
| 30 | 110 |  | 10,143,012 |  | 1,852,690 |  | 1,521,452 | 122\% | 18.27\% | 15.00\% |
| 31 | 84 |  | 7,335,883 |  | 1,352,704 |  | 1,100,383 | 123\% | 18.44\% | 15.00\% |
| 32 | 46 |  | 4,198,234 |  | 697,112 |  | 629,735 | 111\% | 16.60\% | 15.00\% |
| 33 | 32 |  | 2,936,957 |  | 460,049 |  | 440,543 | 104\% | 15.66\% | 15.00\% |
| 34 | 16 |  | 1,350,217 |  | 257,375 |  | 202,532 | 127\% | 19.06\% | 15.00\% |
| 35 | 11 |  | 858,582 |  | 180,670 |  | 128,787 | 140\% | 21.04\% | 15.00\% |
| 36 | 8 |  | 633,394 |  | 179,349 |  | 95,009 | 189\% | 28.32\% | 15.00\% |
| 37 | 6 |  | 497,039 |  | 139,870 |  | 74,556 | 188\% | 28.14\% | 15.00\% |
| 38 | 5 |  | 450,248 |  | 113,196 |  | 67,537 | 168\% | 25.14\% | 15.00\% |
| 39 | 4 |  | 353,763 |  | 85,982 |  | 53,065 | 162\% | 24.30\% | 15.00\% |
| 40 | 3 |  | 262,062 |  | 52,586 |  | 39,309 | 134\% | 20.07\% | 15.00\% |
| 41 | 1 |  | 87,391 |  | 565 |  | 13,109 | 4\% | 0.65\% | 15.00\% |
| 42 | 2 |  | 150,294 |  | 2,771 |  | 22,544 | 12\% | 1.84\% | 15.00\% |
| 43 | 1 |  | 64,782 |  | - |  | 9,717 |  |  | 15.00\% |
| 44 | 2 |  | 134,053 |  | 304 |  | 20,108 | 2\% | 0.23\% | 15.00\% |
| 45 | 1 |  | 72,435 |  | - |  | 10,865 |  |  | 15.00\% |
| Total | 85,141 |  | 5,844,315,947 |  | 769,454,789 |  | 668,756,235 | 115\% | 13.17\% | 11.44\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS OVERTIME PAY EXPERIENCE FOR ALL YEARS MEN AND WOMEN

TABLE 13A

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 1,625 | \$ | 51,816,726 | \$ | 1,402,146 | \$ | 6,736,174 | 21\% | 2.71\% | 13.00\% |
| 1 | 3,459 |  | 128,624,665 |  | 11,984,091 |  | 16,721,207 | 72\% | 9.32\% | 13.00\% |
| 2 | 4,103 |  | 167,536,632 |  | 19,034,710 |  | 21,779,762 | 87\% | 11.36\% | 13.00\% |
| 3 | 4,266 |  | 195,995,655 |  | 22,826,139 |  | 25,479,435 | 90\% | 11.65\% | 13.00\% |
| 4 | 4,339 |  | 219,346,600 |  | 25,970,103 |  | 28,515,058 | 91\% | 11.84\% | 13.00\% |
| 5 | 3,842 |  | 235,517,204 |  | 25,339,620 |  | 30,617,236 | 83\% | 10.76\% | 13.00\% |
| 6 | 3,907 |  | 270,108,927 |  | 31,831,340 |  | 35,114,161 | 91\% | 11.78\% | 13.00\% |
| 7 | 3,841 |  | 270,694,235 |  | 34,099,746 |  | 35,190,251 | 97\% | 12.60\% | 13.00\% |
| 8 | 3,325 |  | 235,534,938 |  | 28,015,641 |  | 30,619,542 | 91\% | 11.89\% | 13.00\% |
| 9 | 2,932 |  | 211,937,153 |  | 24,531,530 |  | 27,551,830 | 89\% | 11.57\% | 13.00\% |
| 10 | 2,775 |  | 210,290,883 |  | 27,292,587 |  | 27,337,815 | 100\% | 12.98\% | 13.00\% |
| 11 | 2,594 |  | 201,206,591 |  | 27,517,480 |  | 26,156,857 | 105\% | 13.68\% | 13.00\% |
| 12 | 2,625 |  | 202,128,796 |  | 26,460,248 |  | 26,276,744 | 101\% | 13.09\% | 13.00\% |
| 13 | 3,325 |  | 246,461,168 |  | 29,089,826 |  | 32,039,952 | 91\% | 11.80\% | 13.00\% |
| 14 | 3,860 |  | 284,274,416 |  | 32,959,784 |  | 36,955,674 | 89\% | 11.59\% | 13.00\% |
| 15 | 4,291 |  | 322,098,650 |  | 38,819,780 |  | 41,872,825 | 93\% | 12.05\% | 13.00\% |
| 16 | 4,782 |  | 351,589,559 |  | 41,121,198 |  | 45,706,643 | 90\% | 11.70\% | 13.00\% |
| 17 | 4,800 |  | 352,985,674 |  | 44,992,431 |  | 45,888,138 | 98\% | 12.75\% | 13.00\% |
| 18 | 5,037 |  | 377,351,637 |  | 50,473,146 |  | 49,055,713 | 103\% | 13.38\% | 13.00\% |
| 19 | 3,864 |  | 301,230,962 |  | 45,624,368 |  | 39,160,025 | 117\% | 15.15\% | 13.00\% |
| 20 | 2,811 |  | 229,983,985 |  | 38,871,555 |  | 29,897,918 | 130\% | 16.90\% | 13.00\% |
| 21 | 2,378 |  | 203,980,996 |  | 36,424,848 |  | 26,517,529 | 137\% | 17.86\% | 13.00\% |
| 22 | 2,002 |  | 175,568,303 |  | 32,488,142 |  | 22,823,879 | 142\% | 18.50\% | 13.00\% |
| 23 | 1,449 |  | 129,405,145 |  | 22,987,773 |  | 16,822,669 | 137\% | 17.76\% | 13.00\% |
| 24 | 998 |  | 91,366,470 |  | 16,571,123 |  | 11,877,641 | 140\% | 18.14\% | 13.00\% |
| 25 | 642 |  | 59,751,597 |  | 11,356,217 |  | 7,767,708 | 146\% | 19.01\% | 13.00\% |
| 26 | 368 |  | 34,454,963 |  | 6,289,754 |  | 4,479,145 | 140\% | 18.26\% | 13.00\% |
| 27 | 257 |  | 23,966,634 |  | 4,323,623 |  | 3,115,662 | 139\% | 18.04\% | 13.00\% |
| 28 | 184 |  | 17,355,758 |  | 3,097,390 |  | 2,256,249 | 137\% | 17.85\% | 13.00\% |
| 29 | 128 |  | 12,222,678 |  | 2,283,227 |  | 1,588,948 | 144\% | 18.68\% | 13.00\% |
| 30 | 110 |  | 10,143,012 |  | 1,852,690 |  | 1,318,592 | 141\% | 18.27\% | 13.00\% |
| 31 | 84 |  | 7,335,883 |  | 1,352,704 |  | 953,665 | 142\% | 18.44\% | 13.00\% |
| 32 | 46 |  | 4,198,234 |  | 697,112 |  | 545,770 | 128\% | 16.60\% | 13.00\% |
| 33 | 32 |  | 2,936,957 |  | 460,049 |  | 381,804 | 120\% | 15.66\% | 13.00\% |
| 34 | 16 |  | 1,350,217 |  | 257,375 |  | 175,528 | 147\% | 19.06\% | 13.00\% |
| 35 | 11 |  | 858,582 |  | 180,670 |  | 111,616 | 162\% | 21.04\% | 13.00\% |
| 36 | 8 |  | 633,394 |  | 179,349 |  | 82,341 | 218\% | 28.32\% | 13.00\% |
| 37 | 6 |  | 497,039 |  | 139,870 |  | 64,615 | 216\% | 28.14\% | 13.00\% |
| 38 | 5 |  | 450,248 |  | 113,196 |  | 58,532 | 193\% | 25.14\% | 13.00\% |
| 39 | 4 |  | 353,763 |  | 85,982 |  | 45,989 | 187\% | 24.30\% | 13.00\% |
| 40 | 3 |  | 262,062 |  | 52,586 |  | 34,068 | 154\% | 20.07\% | 13.00\% |
| 41 | 1 |  | 87,391 |  | 565 |  | 11,361 | 5\% | 0.65\% | 13.00\% |
| 42 | 2 |  | 150,294 |  | 2,771 |  | 19,538 | 14\% | 1.84\% | 13.00\% |
| 43 | 1 |  | 64,782 |  | - |  | 8,422 |  |  | 13.00\% |
| 44 | 2 |  | 134,053 |  | 304 |  | 17,427 | 2\% | 0.23\% | 13.00\% |
| 45 | 1 |  | 72,435 |  | - |  | 9,417 |  |  | 13.00\% |
| Total | 85,141 |  | 5,844,315,947 |  | 769,454,789 |  | 759,761,073 | 101\% | 13.17\% | 13.00\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS OVERTIME PAY EXPERIENCE BEFORE SERVICE RETIREMENT MEN AND WOMEN

TABLE 13B
10-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) |  | (7) | (8) |
| 0 | 1 | \$ | 72,644 | \$ | 4,204 | \$ | 7,264 | 58\% | 5.79\% | 10.00\% |
| 1 | 0 |  | - |  | - |  | - |  |  | 10.00\% |
| 2 | 1 |  | 89,645 |  | 26,961 |  | 8,965 | 301\% | 30.08\% | 10.00\% |
| 3 | 0 |  | - |  | - |  | - |  |  | 10.00\% |
| 4 | 1 |  | 59,543 |  | 1,818 |  | 5,954 | $31 \%$ | 3.05\% | 10.00\% |
| 5 | 0 |  | - |  | - |  | - |  |  | 10.00\% |
| 6 | 0 |  | - |  | - |  | - |  |  | 10.00\% |
| 7 | 0 |  | - |  | - |  | - |  |  | 10.00\% |
| 8 | 1 |  | 81,797 |  | 13,721 |  | 8,180 | 168\% | 16.77\% | 10.00\% |
| 9 | 2 |  | 146,843 |  | 19,167 |  | 14,684 | 131\% | 13.05\% | 10.00\% |
| 10 | 2 |  | 178,477 |  | 31,959 |  | 17,848 | 179\% | 17.91\% | 10.00\% |
| 11 | 1 |  | 78,180 |  | 16,786 |  | 7,818 | 215\% | 21.47\% | 10.00\% |
| 12 | 1 |  | 87,791 |  | 6,262 |  | 8,779 | 71\% | 7.13\% | 10.00\% |
| 13 | 8 |  | 507,590 |  | 53,114 |  | 50,759 | 105\% | 10.46\% | 10.00\% |
| 14 | 15 |  | 976,804 |  | 113,846 |  | 97,680 | 117\% | 11.65\% | 10.00\% |
| 15 | 42 |  | 2,884,630 |  | 249,464 |  | 288,463 | 86\% | 8.65\% | 10.00\% |
| 16 | 132 |  | 9,228,714 |  | 770,633 |  | 1,015,158 | 76\% | 8.35\% | 11.00\% |
| 17 | 145 |  | 10,244,485 |  | 1,059,120 |  | 1,229,338 | 86\% | 10.34\% | 12.00\% |
| 18 | 201 |  | 14,163,884 |  | 1,314,313 |  | 1,841,305 | 71\% | 9.28\% | 13.00\% |
| 19 | 1,452 |  | 107,924,975 |  | 11,587,009 |  | 15,109,497 | 77\% | 10.74\% | 14.00\% |
| 20 | 1,150 |  | 89,288,695 |  | 11,192,790 |  | 13,393,304 | 84\% | 12.54\% | 15.00\% |
| 21 | 447 |  | 37,156,875 |  | 5,707,494 |  | 5,573,531 | 102\% | 15.36\% | 15.00\% |
| 22 | 267 |  | 23,395,757 |  | 3,951,787 |  | 3,509,363 | 113\% | 16.89\% | 15.00\% |
| 23 | 147 |  | 12,731,635 |  | 1,816,025 |  | 1,909,745 | 95\% | 14.26\% | 15.00\% |
| 24 | 203 |  | 18,246,970 |  | 2,539,526 |  | 2,737,046 | 93\% | 13.92\% | 15.00\% |
| 25 | 142 |  | 13,481,456 |  | 2,222,454 |  | 2,022,218 | 110\% | 16.49\% | 15.00\% |
| 26 | 78 |  | 7,655,934 |  | 991,571 |  | 1,148,390 | 86\% | 12.95\% | 15.00\% |
| 27 | 32 |  | 3,094,383 |  | 339,635 |  | 464,157 | 73\% | 10.98\% | 15.00\% |
| 28 | 23 |  | 2,045,137 |  | 374,487 |  | 306,771 | 122\% | 18.31\% | 15.00\% |
| 29 | 28 |  | 2,764,408 |  | 237,958 |  | 414,661 | 57\% | 8.61\% | 15.00\% |
| 30 | 18 |  | 1,755,682 |  | 171,880 |  | 263,352 | 65\% | 9.79\% | 15.00\% |
| 31 | 11 |  | 1,309,235 |  | 131,437 |  | 196,385 | 67\% | 10.04\% | 15.00\% |
| 32 | 15 |  | 1,246,457 |  | 200,327 |  | 186,969 | 107\% | 16.07\% | 15.00\% |
| 33 | 7 |  | 623,175 |  | 168,308 |  | 93,476 | 180\% | 27.01\% | 15.00\% |
| 34 | 7 |  | 747,777 |  | 24,442 |  | 112,167 | 22\% | 3.27\% | 15.00\% |
| 35 | 3 |  | 340,427 |  | 17,138 |  | 51,064 | 34\% | 5.03\% | 15.00\% |
| 36 | 2 |  | 160,671 |  | 28,562 |  | 24,101 | 119\% | 17.78\% | 15.00\% |
| 37 | 1 |  | 74,230 |  | 1,731 |  | 11,134 | 16\% | 2.33\% | 15.00\% |
| 38 | 1 |  | 87,171 |  | 37,994 |  | 13,076 | 291\% | 43.59\% | 15.00\% |
| 39 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 40 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 41 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 42 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 43 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 45 | 1 |  | 64,476 |  | 762 |  | 9,671 | 8\% | 1.18\% | 15.00\% |
| Total | 4,588 |  | 362,996,551 |  | 45,424,685 |  | 52,152,275 | 87\% | 12.51\% | 14.37\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS OVERTIME PAY EXPERIENCE BEFORE SERVICE RETIREMENT MEN AND WOMEN

TABLE 13B
10-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 1 | \$ | 72,644 | \$ | 4,204 | \$ | 10,170 | 41\% | 5.79\% | 14.00\% |
| 1 | 0 |  | - |  | - |  | - |  |  | 14.00\% |
| 2 | 1 |  | 89,645 |  | 26,961 |  | 12,550 | 215\% | 30.08\% | 14.00\% |
| 3 | 0 |  | - |  | - |  | - |  |  | 14.00\% |
| 4 | 1 |  | 59,543 |  | 1,818 |  | 8,336 | 22\% | 3.05\% | 14.00\% |
| 5 | 0 |  | - |  | - |  | - |  |  | 14.00\% |
| 6 | 0 |  | - |  | - |  | - |  |  | 14.00\% |
| 7 | 0 |  | - |  | - |  | - |  |  | 14.00\% |
| 8 | 1 |  | 81,797 |  | 13,721 |  | 11,452 | 120\% | 16.77\% | 14.00\% |
| 9 | 2 |  | 146,843 |  | 19,167 |  | 20,558 | 93\% | 13.05\% | 14.00\% |
| 10 | 2 |  | 178,477 |  | 31,959 |  | 24,987 | 128\% | 17.91\% | 14.00\% |
| 11 | 1 |  | 78,180 |  | 16,786 |  | 10,945 | 153\% | 21.47\% | 14.00\% |
| 12 | 1 |  | 87,791 |  | 6,262 |  | 12,291 | 51\% | 7.13\% | 14.00\% |
| 13 | 8 |  | 507,590 |  | 53,114 |  | 71,063 | 75\% | 10.46\% | 14.00\% |
| 14 | 15 |  | 976,804 |  | 113,846 |  | 136,753 | 83\% | 11.65\% | 14.00\% |
| 15 | 42 |  | 2,884,630 |  | 249,464 |  | 403,848 | 62\% | 8.65\% | 14.00\% |
| 16 | 132 |  | 9,228,714 |  | 770,633 |  | 1,292,020 | 60\% | 8.35\% | 14.00\% |
| 17 | 145 |  | 10,244,485 |  | 1,059,120 |  | 1,434,228 | 74\% | 10.34\% | 14.00\% |
| 18 | 201 |  | 14,163,884 |  | 1,314,313 |  | 1,982,944 | 66\% | 9.28\% | 14.00\% |
| 19 | 1,452 |  | 107,924,975 |  | 11,587,009 |  | 15,109,497 | 77\% | 10.74\% | 14.00\% |
| 20 | 1,150 |  | 89,288,695 |  | 11,192,790 |  | 12,500,417 | 90\% | 12.54\% | 14.00\% |
| 21 | 447 |  | 37,156,875 |  | 5,707,494 |  | 5,201,962 | 110\% | 15.36\% | 14.00\% |
| 22 | 267 |  | 23,395,757 |  | 3,951,787 |  | 3,275,406 | 121\% | 16.89\% | 14.00\% |
| 23 | 147 |  | 12,731,635 |  | 1,816,025 |  | 1,782,429 | 102\% | 14.26\% | 14.00\% |
| 24 | 203 |  | 18,246,970 |  | 2,539,526 |  | 2,554,576 | 99\% | 13.92\% | 14.00\% |
| 25 | 142 |  | 13,481,456 |  | 2,222,454 |  | 1,887,404 | 118\% | 16.49\% | 14.00\% |
| 26 | 78 |  | 7,655,934 |  | 991,571 |  | 1,071,831 | 93\% | 12.95\% | 14.00\% |
| 27 | 32 |  | 3,094,383 |  | 339,635 |  | 433,214 | 78\% | 10.98\% | 14.00\% |
| 28 | 23 |  | 2,045,137 |  | 374,487 |  | 286,319 | 131\% | 18.31\% | 14.00\% |
| 29 | 28 |  | 2,764,408 |  | 237,958 |  | 387,017 | 61\% | 8.61\% | 14.00\% |
| 30 | 18 |  | 1,755,682 |  | 171,880 |  | 245,795 | 70\% | 9.79\% | 14.00\% |
| 31 | 11 |  | 1,309,235 |  | 131,437 |  | 183,293 | 72\% | 10.04\% | 14.00\% |
| 32 | 15 |  | 1,246,457 |  | 200,327 |  | 174,504 | 115\% | 16.07\% | 14.00\% |
| 33 | 7 |  | 623,175 |  | 168,308 |  | 87,244 | 193\% | 27.01\% | 14.00\% |
| 34 | 7 |  | 747,777 |  | 24,442 |  | 104,689 | 23\% | 3.27\% | 14.00\% |
| 35 | 3 |  | 340,427 |  | 17,138 |  | 47,660 | 36\% | 5.03\% | 14.00\% |
| 36 | 2 |  | 160,671 |  | 28,562 |  | 22,494 | 127\% | 17.78\% | 14.00\% |
| 37 | 1 |  | 74,230 |  | 1,731 |  | 10,392 | 17\% | 2.33\% | 14.00\% |
| 38 | 1 |  | 87,171 |  | 37,994 |  | 12,204 | 311\% | 43.59\% | 14.00\% |
| 39 | 0 |  | - |  | - |  | - |  |  | 14.00\% |
| 40 | 0 |  | - |  | - |  | - |  |  | 14.00\% |
| 41 | 0 |  | - |  | - |  | - |  |  | 14.00\% |
| 42 | 0 |  | - |  | - |  | - |  |  | 14.00\% |
| 43 | 0 |  | - |  | - |  | - |  |  | 14.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 14.00\% |
| 45 | 1 |  | 64,476 |  | 762 |  | 9,027 | 8\% | 1.18\% | 14.00\% |
| Total | 4,588 |  | 362,996,551 |  | 45,424,685 |  | 50,819,517 | 89\% | 12.51\% | 14.00\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS OVERTIME PAY EXPERIENCE BEFORE DISABLED RETIREMENT MEN AND WOMEN

TABLE 13C
10-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  |  |  | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  |  | 10.00\% |
| 1 | 3 | \$ | 120,192 | \$ | 5,727 | \$ | 12,019 | 48\% | 4.76\% | 10.00\% |
| 2 | 3 |  | 157,474 |  | 3,842 |  | 15,747 | 24\% | 2.44\% | 10.00\% |
| 3 | 3 |  | 138,233 |  | 3,396 |  | 13,823 | 25\% | 2.46\% | 10.00\% |
| 4 | 5 |  | 267,676 |  | 7,916 |  | 26,768 | 30\% | 2.96\% | 10.00\% |
| 5 | 9 |  | 587,544 |  | 16,492 |  | 58,754 | 28\% | 2.81\% | 10.00\% |
| 6 | 9 |  | 666,082 |  | 14,979 |  | 66,608 | 22\% | 2.25\% | 10.00\% |
| 7 | 16 |  | 1,124,815 |  | 26,934 |  | 112,482 | 24\% | 2.39\% | 10.00\% |
| 8 | 19 |  | 1,417,449 |  | 71,500 |  | 141,745 | 50\% | 5.04\% | 10.00\% |
| 9 | 18 |  | 1,426,381 |  | 44,852 |  | 142,638 | 31\% | 3.14\% | 10.00\% |
| 10 | 26 |  | 1,958,398 |  | 105,162 |  | 195,840 | 54\% | 5.37\% | 10.00\% |
| 11 | 26 |  | 2,053,120 |  | 52,434 |  | 205,312 | 26\% | 2.55\% | 10.00\% |
| 12 | 25 |  | 1,894,639 |  | 77,564 |  | 189,464 | 41\% | 4.09\% | 10.00\% |
| 13 | 30 |  | 2,247,175 |  | 130,852 |  | 224,718 | 58\% | 5.82\% | 10.00\% |
| 14 | 34 |  | 2,542,469 |  | 132,012 |  | 254,247 | 52\% | 5.19\% | 10.00\% |
| 15 | 39 |  | 2,910,757 |  | 121,633 |  | 291,076 | 42\% | 4.18\% | 10.00\% |
| 16 | 44 |  | 3,182,651 |  | 146,443 |  | 350,092 | 42\% | 4.60\% | 11.00\% |
| 17 | 34 |  | 2,540,526 |  | 173,147 |  | 304,863 | 57\% | 6.82\% | 12.00\% |
| 18 | 28 |  | 2,120,489 |  | 138,228 |  | 275,664 | 50\% | 6.52\% | 13.00\% |
| 19 | 40 |  | 3,181,752 |  | 265,994 |  | 445,445 | 60\% | 8.36\% | 14.00\% |
| 20 | 30 |  | 2,583,029 |  | 285,532 |  | 387,454 | 74\% | 11.05\% | 15.00\% |
| 21 | 25 |  | 2,125,704 |  | 199,437 |  | 318,856 | 63\% | 9.38\% | 15.00\% |
| 22 | 17 |  | 1,548,603 |  | 118,605 |  | 232,290 | 51\% | 7.66\% | 15.00\% |
| 23 | 8 |  | 723,387 |  | 105,386 |  | 108,508 | 97\% | 14.57\% | 15.00\% |
| 24 | 6 |  | 483,068 |  | 48,939 |  | 72,460 | 68\% | 10.13\% | 15.00\% |
| 25 | 9 |  | 783,395 |  | 100,778 |  | 117,509 | 86\% | 12.86\% | 15.00\% |
| 26 | 2 |  | 179,261 |  | 29,392 |  | 26,889 | 109\% | 16.40\% | 15.00\% |
| 27 | 1 |  | 87,387 |  | 17,760 |  | 13,108 | 135\% | 20.32\% | 15.00\% |
| 28 | 2 |  | 200,350 |  | 32,724 |  | 30,052 | 109\% | 16.33\% | 15.00\% |
| 29 | 3 |  | 225,983 |  | 27,613 |  | 33,898 | 81\% | 12.22\% | 15.00\% |
| 30 | 1 |  | 61,362 |  | 217 |  | 9,204 | 2\% | 0.35\% | 15.00\% |
| 31 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 32 | 2 |  | 161,590 |  | 41,571 |  | 24,239 | 172\% | 25.73\% | 15.00\% |
| 33 | 2 |  | 179,793 |  | 636 |  | 26,969 | $2 \%$ | 0.35\% | 15.00\% |
| 34 | 1 |  | 72,177 |  | - |  | 10,826 |  |  | 15.00\% |
| 35 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 36 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 37 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 38 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 39 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 40 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 41 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 42 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 43 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| Total | 520 |  | 39,952,911 |  | 2,547,697 |  | 4,739,567 | 54\% | 6.38\% | 11.86\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS OVERTIME PAY EXPERIENCE BEFORE DISABLED RETIREMENT MEN AND WOMEN

TABLE 13C

| Service | Life Years Exposed | Salary during the Year |  |  |  | Proposed Overtime |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual Overtime |  |  |  | Actual \% | Proposed \% |
| (1) | (2) |  | (3) |  | (4) |  | (5) |  | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  |  | 13.00\% |
| 1 | 3 | \$ | 120,192 | \$ | 5,727 | \$ | 15,625 | 37\% | 4.76\% | 13.00\% |
| 2 | 3 |  | 157,474 |  | 3,842 |  | 20,472 | 19\% | 2.44\% | 13.00\% |
| 3 | 3 |  | 138,233 |  | 3,396 |  | 17,970 | 19\% | 2.46\% | 13.00\% |
| 4 | 5 |  | 267,676 |  | 7,916 |  | 34,798 | 23\% | 2.96\% | 13.00\% |
| 5 | 9 |  | 587,544 |  | 16,492 |  | 76,381 | 22\% | 2.81\% | 13.00\% |
| 6 | 9 |  | 666,082 |  | 14,979 |  | 86,591 | 17\% | 2.25\% | 13.00\% |
| 7 | 16 |  | 1,124,815 |  | 26,934 |  | 146,226 | 18\% | 2.39\% | 13.00\% |
| 8 | 19 |  | 1,417,449 |  | 71,500 |  | 184,268 | 39\% | 5.04\% | 13.00\% |
| 9 | 18 |  | 1,426,381 |  | 44,852 |  | 185,430 | 24\% | 3.14\% | 13.00\% |
| 10 | 26 |  | 1,958,398 |  | 105,162 |  | 254,592 | 41\% | 5.37\% | 13.00\% |
| 11 | 26 |  | 2,053,120 |  | 52,434 |  | 266,906 | 20\% | 2.55\% | 13.00\% |
| 12 | 25 |  | 1,894,639 |  | 77,564 |  | 246,303 | 31\% | 4.09\% | 13.00\% |
| 13 | 30 |  | 2,247,175 |  | 130,852 |  | 292,133 | 45\% | 5.82\% | 13.00\% |
| 14 | 34 |  | 2,542,469 |  | 132,012 |  | 330,521 | 40\% | 5.19\% | 13.00\% |
| 15 | 39 |  | 2,910,757 |  | 121,633 |  | 378,398 | 32\% | 4.18\% | 13.00\% |
| 16 | 44 |  | 3,182,651 |  | 146,443 |  | 413,745 | 35\% | 4.60\% | 13.00\% |
| 17 | 34 |  | 2,540,526 |  | 173,147 |  | 330,268 | 52\% | 6.82\% | 13.00\% |
| 18 | 28 |  | 2,120,489 |  | 138,228 |  | 275,664 | 50\% | 6.52\% | 13.00\% |
| 19 | 40 |  | 3,181,752 |  | 265,994 |  | 413,628 | 64\% | 8.36\% | 13.00\% |
| 20 | 30 |  | 2,583,029 |  | 285,532 |  | 335,794 | 85\% | 11.05\% | 13.00\% |
| 21 | 25 |  | 2,125,704 |  | 199,437 |  | 276,342 | 72\% | 9.38\% | 13.00\% |
| 22 | 17 |  | 1,548,603 |  | 118,605 |  | 201,318 | 59\% | 7.66\% | 13.00\% |
| 23 | 8 |  | 723,387 |  | 105,386 |  | 94,040 | 112\% | 14.57\% | 13.00\% |
| 24 | 6 |  | 483,068 |  | 48,939 |  | 62,799 | 78\% | 10.13\% | 13.00\% |
| 25 | 9 |  | 783,395 |  | 100,778 |  | 101,841 | 99\% | 12.86\% | 13.00\% |
| 26 | 2 |  | 179,261 |  | 29,392 |  | 23,304 | 126\% | 16.40\% | 13.00\% |
| 27 | 1 |  | 87,387 |  | 17,760 |  | 11,360 | 156\% | 20.32\% | 13.00\% |
| 28 | 2 |  | 200,350 |  | 32,724 |  | 26,045 | 126\% | 16.33\% | 13.00\% |
| 29 | 3 |  | 225,983 |  | 27,613 |  | 29,378 | 94\% | 12.22\% | 13.00\% |
| 30 | 1 |  | 61,362 |  | 217 |  | 7,977 | 3\% | 0.35\% | 13.00\% |
| 31 | 0 |  | - |  | - |  | - |  |  | 13.00\% |
| 32 | 2 |  | 161,590 |  | 41,571 |  | 21,007 | 198\% | 25.73\% | 13.00\% |
| 33 | 2 |  | 179,793 |  | 636 |  | 23,373 | $3 \%$ | 0.35\% | 13.00\% |
| 34 | 1 |  | 72,177 |  | - |  | 9,383 |  |  | 13.00\% |
| 35 | 0 |  | - |  | - |  | - |  |  | 13.00\% |
| 36 | 0 |  | - |  | - |  | - |  |  | 13.00\% |
| 37 | 0 |  | - |  | - |  | - |  |  | 13.00\% |
| 38 | 0 |  | - |  | - |  | - |  |  | 13.00\% |
| 39 | 0 |  | - |  | - |  | - |  |  | 13.00\% |
| 40 | 0 |  | - |  | - |  | - |  |  | 13.00\% |
| 41 | 0 |  | - |  | - |  | - |  |  | 13.00\% |
| 42 | 0 |  | - |  | - |  | - |  |  | 13.00\% |
| 43 | 0 |  | - |  | - |  | - |  |  | 13.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 13.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 13.00\% |
| Total | 520 |  | 39,952,911 |  | 2,547,697 |  | 5,193,878 | 49\% | 6.38\% | 13.00\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - CORRECTIONS OVERTIME PAY EXPERIENCE FOR ALL YEARS MEN AND WOMEN




* Four-year and eight-year periods ending 6/30/2011 were studied for the Withdrawal and Disability Decrements.
** For Salary Increases, average annual percentage increase in salary is shown. For Overtime Pay, average annual overtime pay is expressed as a percentage of salary.

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA
WITHDRAWAL ASSUMPTIONS AND EXPERIENCE
FOR THE EIGHT-YEAR PERIOD ENDING 6/30/2011


## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

|  | TABLE 1A |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013Expected Deaths |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 0 | N/A | 0.1597\% | 0.1800\% | 0 | 0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.2033\% | 0.1964\% | 0 | 0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.2442\% | 0.2140\% | 0 | 0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.2825\% | 0.2329\% | 0 | 0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.3182\% | 0.2531\% | 0 | 0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.3473\% | 0.2744\% | 0 | 0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.3729\% | 0.2968\% | 0 | 0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.3954\% | 0.3206\% | 0 | 0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.4146\% | 0.3455\% | 0 | 0 | 0\% | 0\% |
| 50 | , | 7 | 0.142857 | 0.4307\% | 0.3720\% | 0.0 | 0.0 | 3317\% | 3840\% |
| 51 | 0 | 22 | 0.000000 | 0.4875\% | 0.4006\% | 0.1 | 0.1 | 0\% | 0\% |
| 52 | 0 | 21 | 0.000000 | 0.5460\% | 0.4320\% | 0.1 | 0.1 | 0\% | 0\% |
| 53 | 0 | 34 | 0.000000 | 0.6110\% | 0.4669\% | 0.2 | 0.2 | 0\% | 0\% |
| 54 | 1 | 49 | 0.020408 | 0.6785\% | 0.5058\% | 0.3 | 0.2 | 301\% | 403\% |
| 55 | 0 | 61 | 0.000000 | 0.7545\% | 0.5494\% | 0.5 | 0.3 | 0\% | 0\% |
| 56 | 0 | 95 | 0.000000 | 0.8125\% | 0.5983\% | 0.8 | 0.6 | 0\% | 0\% |
| 57 | 3 | 115 | 0.026087 | 0.8712\% | 0.6533\% | 1.0 | 0.8 | 299\% | 399\% |
| 58 | 0 | 113 | 0.000000 | 0.9309\% | 0.7148\% | 1.1 | 0.8 | 0\% | 0\% |
| 59 | 1 | 141 | 0.007092 | 0.9834\% | 0.7836\% | 1.4 | 1.1 | 72\% | 91\% |
| 60 | 0 | 149 | 0.000000 | 1.0360\% | 0.8603\% | 1.5 | 1.3 | 0\% | 0\% |
| 61 | 1 | 160 | 0.006250 | 1.1527\% | 0.9456\% | 1.8 | 1.5 | 54\% | 66\% |
| 62 | 4 | 189 | 0.021164 | 1.2582\% | 1.0393\% | 2.4 | 2.0 | 168\% | 204\% |
| 63 | 2 | 189 | 0.010582 | 1.3720\% | 1.1423\% | 2.6 | 2.2 | 77\% | 93\% |
| 64 | 1 | 176 | 0.005682 | 1.4726\% | 1.2554\% | 2.6 | 2.2 | 39\% | 45\% |
| 65 | 3 | 153 | 0.019608 | 1.5702\% | 1.3799\% | 2.4 | 2.1 | 125\% | 142\% |
| 66 | 1 | 131 | 0.007634 | 1.7139\% | 1.5166\% | 2.2 | 2.0 | 45\% | 50\% |
| 67 | 3 | 130 | 0.023077 | 1.8447\% | 1.6669\% | 2.4 | 2.2 | 125\% | 138\% |
| 68 | 2 | 119 | 0.016807 | 1.9597\% | 1.8320\% | 2.3 | 2.2 | 86\% | 92\% |
| 69 | 2 | 108 | 0.018519 | 2.0894\% | 2.0136\% | 2.3 | 2.2 | 89\% | 92\% |
| 70 | 2 | 93 | 0.021505 | 2.2013\% | 2.2131\% | 2.0 | 2.1 | 98\% | 97\% |
| 71 | 1 | 72 | 0.013889 | 2.3984\% | 2.4324\% | 1.7 | 1.8 | 58\% | 57\% |
| 72 | 2 | 64 | 0.031250 | 2.5999\% | 2.6735\% | 1.7 | 1.7 | 120\% | 117\% |
| 73 | 5 | 62 | 0.080645 | 2.8053\% | 2.9384\% | 1.7 | 1.8 | 287\% | 274\% |
| 74 | 0 | 60 | 0.000000 | 3.0149\% | 3.2295\% | 1.8 | 1.9 | 0\% | 0\% |
| 75 | 3 | 65 | 0.046154 | 3.2551\% | 3.5496\% | 2.1 | 2.3 | 142\% | 130\% |
| 76 | 3 | 64 | 0.046875 | 3.7527\% | 3.9013\% | 2.4 | 2.5 | 125\% | 120\% |
| 77 | 0 | 68 | 0.000000 | 4.2954\% | 4.2879\% | 2.9 | 2.9 | 0\% | 0\% |
| 78 | 2 | 64 | 0.031250 | 4.8575\% | 4.7128\% | 3.1 | 3.0 | 64\% | 66\% |
| 79 | 2 | 61 | 0.032787 | 5.4395\% | 5.1798\% | 3.3 | 3.2 | 60\% | 63\% |
| 80 | 2 | 62 | 0.032258 | 6.0416\% | 5.6931\% | 3.7 | 3.5 | 53\% | 57\% |
| 81 | 2 | 58 | 0.034483 | 6.6973\% | 6.2572\% | 3.9 | 3.6 | 51\% | 55\% |
| 82 | 4 | 58 | 0.068966 | 7.3631\% | 6.8772\% | 4.3 | 4.0 | 94\% | 100\% |
| 83 | 2 | 53 | 0.037736 | 7.9745\% | 7.5587\% | 4.2 | 4.0 | 47\% | 50\% |
| 84 | 2 | 50 | 0.040000 | 8.6555\% | 8.3077\% | 4.3 | 4.2 | 46\% | 48\% |
| 85 | 4 | 51 | 0.078431 | 9.2719\% | 9.1310\% | 4.7 | 4.7 | 85\% | 86\% |
| 86 | 4 | 42 | 0.095238 | 10.4648\% | 10.0358\% | 4.4 | 4.2 | 91\% | 95\% |
| 87 | 5 | 38 | 0.131579 | 11.7953\% | 11.0303\% | 4.5 | 4.2 | 112\% | 119\% |
| 88 | 4 | 31 | 0.129032 | 13.1900\% | 12.1233\% | 4.1 | 3.8 | 98\% | 106\% |
| 89 | 3 | 17 | 0.176471 | 14.5331\% | 13.3246\% | 2.5 | 2.3 | 121\% | 132\% |
| 90 | 1 | 12 | 0.083333 | 16.0483\% | 14.6450\% | 1.9 | 1.8 | 52\% | 57\% |
| 91 | 0 | 11 | 0.000000 | 17.8244\% | 16.0962\% | 2.0 | 1.8 | 0\% | 0\% |
| 92 | 1 | 7 | 0.142857 | 19.7255\% | 17.6912\% | 1.4 | 1.2 | 72\% | 81\% |
| 93 | 1 | 8 | 0.125000 | 21.4517\% | 19.4443\% | 1.7 | 1.6 | 58\% | 64\% |
| 94 | 1 | 5 | 0.200000 | 23.1923\% | 21.3710\% | 1.2 | 1.1 | 86\% | 94\% |
| 95 | 2 | 2 | 1.000000 | 25.3168\% | 23.4887\% | 0.5 | 0.5 | 395\% | 426\% |
| 96 | 0 | 0 | N/A | 27.1711\% | 25.8163\% | 0 | 0 | 0\% | 0\% |
| 97 | 0 | 0 | N/A | 28.9556\% | 28.3745\% | 0 | 0 | 0\% | 0\% |
| 98 | 0 | 0 | N/A | 30.9964\% | 31.1862\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 32.6018\% | 34.2765\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 83 | 3,340 |  |  |  | 100.2 | 93.4 | 83\% | 89\% |
| 100 or more | 0 | 0 | N/A | 37.1685\% | 45.5092\% | 0 | 0 | 0\% | 0\% |
| Total | 83 | 3,340 |  |  |  | 100.2 | 93.4 | 83\% | 89\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA MORTALITY EXPERIENCE OF SERVICE RETIREES WOMEN

| Age | TABLE 1B |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 0 | N/A | 0.0783\% | 0.1485\% | 0 | 0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.0868\% | 0.1594\% | 0 | 0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.0975\% | 0.1702\% | 0 | 0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.1105\% | 0.1810\% | 0 | 0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.1251\% | 0.1918\% | 0 | 0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.1417\% | 0.2024\% | 0 | 0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.1603\% | 0.2130\% | 0 | 0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.1817\% | 0.2231\% | 0 | 0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.2048\% | 0.2329\% | 0 | 0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.2307\% | 0.2471\% | 0 | 0 | 0\% | 0\% |
| 51 | 0 | 4 | 0.000000 | 0.2622\% | 0.2656\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 4 | 0.000000 | 0.2990\% | 0.2885\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 11 | 0.000000 | 0.3392\% | 0.3158\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 0 | 11 | 0.000000 | 0.3835\% | 0.3474\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 0 | 12 | 0.000000 | 0.4321\% | 0.3835\% | 0.1 | 0.0 | 0\% | 0\% |
| 56 | 0 | 10 | 0.000000 | 0.5051\% | 0.4239\% | 0.1 | 0.0 | 0\% | 0\% |
| 57 | 1 | 7 | 0.142857 | 0.5811\% | 0.4687\% | 0.0 | 0.0 | 2458\% | 3048\% |
| 58 | 0 | 7 | 0.000000 | 0.6577\% | 0.5178\% | 0.0 | 0.0 | 0\% | 0\% |
| 59 | 0 | 9 | 0.000000 | 0.7386\% | 0.5714\% | 0.1 | 0.1 | 0\% | 0\% |
| 60 | 0 | 12 | 0.000000 | 0.8236\% | 0.6294\% | 0.1 | 0.1 | 0\% | 0\% |
| 61 | 1 | 12 | 0.083333 | 0.9145\% | 0.6918\% | 0.1 | 0.1 | 911\% | 1205\% |
| 62 | 0 | 15 | 0.000000 | 0.9912\% | 0.7604\% | 0.1 | 0.1 | 0\% | 0\% |
| 63 | 0 | 21 | 0.000000 | 1.0664\% | 0.8357\% | 0.2 | 0.2 | 0\% | 0\% |
| 64 | 0 | 18 | 0.000000 | 1.1462\% | 0.9186\% | 0.2 | 0.2 | 0\% | 0\% |
| 65 | 0 | 20 | 0.000000 | 1.2310\% | 1.0096\% | 0.2 | 0.2 | 0\% | 0\% |
| 66 | 0 | 22 | 0.000000 | 1.3217\% | 1.1097\% | 0.3 | 0.2 | 0\% | 0\% |
| 67 | 1 | 23 | 0.043478 | 1.4235\% | 1.2197\% | 0.3 | 0.3 | 305\% | 356\% |
| 68 | 0 | 18 | 0.000000 | 1.5303\% | 1.3406\% | 0.3 | 0.2 | 0\% | 0\% |
| 69 | 0 | 12 | 0.000000 | 1.6051\% | 1.4735\% | 0.2 | 0.2 | 0\% | 0\% |
| 70 | 0 | 10 | 0.000000 | 1.6732\% | 1.6195\% | 0.2 | 0.2 | 0\% | 0\% |
| 71 | 0 | 8 | 0.000000 | 1.8431\% | 1.7800\% | 0.1 | 0.1 | 0\% | 0\% |
| 72 | 0 | 11 | 0.000000 | 2.0222\% | 1.9565\% | 0.2 | 0.2 | 0\% | 0\% |
| 73 | 0 | 12 | 0.000000 | 2.1798\% | 2.1504\% | 0.3 | 0.3 | 0\% | 0\% |
| 74 | 0 | 10 | 0.000000 | 2.3496\% | 2.3635\% | 0.2 | 0.2 | 0\% | 0\% |
| 75 | 1 | 7 | 0.142857 | 2.4953\% | 2.5978\% | 0.2 | 0.2 | 573\% | 550\% |
| 76 | 0 | 4 | 0.000000 | 2.8182\% | 2.8553\% | 0.1 | 0.1 | 0\% | 0\% |
| 77 | 0 | 3 | 0.000000 | 3.1667\% | 3.1383\% | 0.1 | 0.1 | 0\% | 0\% |
| 78 | 1 | 4 | 0.250000 | 3.4923\% | 3.4494\% | 0.1 | 0.1 | 716\% | 725\% |
| 79 | 0 | 3 | 0.000000 | 3.8179\% | 3.7913\% | 0.1 | 0.1 | 0\% | 0\% |
| 80 | 1 | 5 | 0.200000 | 4.1435\% | 4.1671\% | 0.2 | 0.2 | 483\% | 480\% |
| 81 | 0 | 4 | 0.000000 | 4.6586\% | 4.5802\% | 0.2 | 0.2 | 0\% | 0\% |
| 82 | 1 | 5 | 0.200000 | 5.1835\% | 5.0341\% | 0.3 | 0.3 | 386\% | 397\% |
| 83 | 0 | 3 | 0.000000 | 5.7181\% | 5.5331\% | 0.2 | 0.2 | 0\% | 0\% |
| 84 | 0 | 1 | 0.000000 | 6.2626\% | 6.0816\% | 0.1 | 0.1 | 0\% | 0\% |
| 85 | 0 | 1 | 0.000000 | 6.8720\% | 6.6844\% | 0.1 | 0.1 | 0\% | 0\% |
| 86 | 0 | 2 | 0.000000 | 7.9002\% | 7.3469\% | 0.2 | 0.1 | 0\% | 0\% |
| 87 | 1 | 2 | 0.500000 | 8.9443\% | 8.0752\% | 0.2 | 0.2 | 559\% | 619\% |
| 88 | 0 | 1 | 0.000000 | 9.9247\% | 8.8756\% | 0.1 | 0.1 | 0\% | 0\% |
| 89 | 0 | 1 | 0.000000 | 10.9930\% | 9.7553\% | 0.1 | 0.1 | 0\% | 0\% |
| 90 | 0 | 0 | N/A | 11.9814\% | 10.7223\% | 0 | 0 | 0\% | 0\% |
| 91 | 0 | 2 | 0.000000 | 13.6802\% | 11.7851\% | 0.3 | 0.2 | 0\% | 0\% |
| 92 | 0 | 3 | 0.000000 | 15.3234\% | 12.9532\% | 0.5 | 0.4 | 0\% | 0\% |
| 93 | 1 | 4 | 0.250000 | 17.0656\% | 14.2372\% | 0.7 | 0.6 | 146\% | 176\% |
| 94 | 0 | 3 | 0.000000 | 18.5767\% | 15.6484\% | 0.6 | 0.5 | 0\% | 0\% |
| 95 | 1 | 1 | 1.000000 | 20.0298\% | 17.1994\% | 0.2 | 0.2 | 499\% | 581\% |
| 96 | 0 | 0 | N/A | 21.1824\% | 18.9042\% | 0 | 0 | 0\% | 0\% |
| 97 | 0 | 0 | N/A | 22.3611\% | 20.7780\% | 0 | 0 | 0\% | 0\% |
| 98 | 0 | 0 | N/A | 23.0718\% | 22.8376\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 23.4718\% | 25.1012\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 10 | 358 |  |  |  | 7.8 | 7.0 | 128\% | 143\% |
| 100 or more | 0 | 0 | N/A | 25.4498\% | 33.3297\% | 0 | 0 | 0\% | 0\% |
| Total | 10 | 358 |  |  |  | 7.8 | 7.0 | 128\% | 143\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA MORTALITY EXPERIENCE OF SERVICE RETIREES <br> MEN AND WOMEN

|  | TABLE 1C |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 50 | 1 | 7 | 0.142857 | 0.4307\% | 0.3720\% | 0.0 | 0.0 | 3317\% | 3840\% |
| 51 | 0 | 26 | 0.000000 | 0.4528\% | 0.3798\% | 0.1 | 0.1 | 0\% | 0\% |
| 52 | 0 | 25 | 0.000000 | 0.5065\% | 0.4090\% | 0.1 | 0.1 | 0\% | 0\% |
| 53 | 0 | 45 | 0.000000 | 0.5446\% | 0.4300\% | 0.2 | 0.2 | 0\% | 0\% |
| 54 | 1 | 60 | 0.016667 | 0.6244\% | 0.4768\% | 0.4 | 0.3 | 267\% | 350\% |
| 55 | 0 | 73 | 0.000000 | 0.7015\% | 0.5221\% | 0.5 | 0.4 | 0\% | 0\% |
| 56 | 0 | 105 | 0.000000 | 0.7832\% | 0.5817\% | 0.8 | 0.6 | 0\% | 0\% |
| 57 | 4 | 122 | 0.032787 | 0.8546\% | 0.6427\% | 1.0 | 0.8 | 384\% | 510\% |
| 58 | 0 | 120 | 0.000000 | 0.9150\% | 0.7033\% | 1.1 | 0.8 | 0\% | 0\% |
| 59 | 1 | 150 | 0.006667 | 0.9687\% | 0.7709\% | 1.5 | 1.2 | 69\% | 86\% |
| 60 | 0 | 161 | 0.000000 | 1.0202\% | 0.8431\% | 1.6 | 1.4 | 0\% | 0\% |
| 61 | 2 | 172 | 0.011628 | 1.1361\% | 0.9279\% | 2.0 | 1.6 | 102\% | 125\% |
| 62 | 4 | 204 | 0.019608 | 1.2386\% | 1.0188\% | 2.5 | 2.1 | 158\% | 192\% |
| 63 | 2 | 210 | 0.009524 | 1.3414\% | 1.1116\% | 2.8 | 2.3 | 71\% | 86\% |
| 64 | 1 | 194 | 0.005155 | 1.4423\% | 1.2242\% | 2.8 | 2.4 | 36\% | 42\% |
| 65 | 3 | 173 | 0.017341 | 1.5310\% | 1.3371\% | 2.6 | 2.3 | 113\% | 130\% |
| 66 | 1 | 153 | 0.006536 | 1.6575\% | 1.4581\% | 2.5 | 2.2 | 39\% | 45\% |
| 67 | 4 | 153 | 0.026144 | 1.7814\% | 1.5996\% | 2.7 | 2.4 | 147\% | 163\% |
| 68 | 2 | 137 | 0.014599 | 1.9033\% | 1.7675\% | 2.6 | 2.4 | 77\% | 83\% |
| 69 | 2 | 120 | 0.016667 | 2.0410\% | 1.9596\% | 2.4 | 2.4 | 82\% | 85\% |
| 70 | 2 | 103 | 0.019417 | 2.1500\% | 2.1555\% | 2.2 | 2.2 | 90\% | 90\% |
| 71 | 1 | 80 | 0.012500 | 2.3429\% | 2.3672\% | 1.9 | 1.9 | 53\% | 53\% |
| 72 | 2 | 75 | 0.026667 | 2.5152\% | 2.5683\% | 1.9 | 1.9 | 106\% | 104\% |
| 73 | 5 | 74 | 0.067568 | 2.7039\% | 2.8106\% | 2.0 | 2.1 | 250\% | 240\% |
| 74 | 0 | 70 | 0.000000 | 2.9199\% | 3.1058\% | 2.0 | 2.2 | 0\% | 0\% |
| 75 | 4 | 72 | 0.055556 | 3.1812\% | 3.4570\% | 2.3 | 2.5 | 175\% | 161\% |
| 76 | 3 | 68 | 0.044118 | 3.6977\% | 3.8398\% | 2.5 | 2.6 | 119\% | 115\% |
| 77 | 0 | 71 | 0.000000 | 4.2477\% | 4.2393\% | 3.0 | 3.0 | 0\% | 0\% |
| 78 | 3 | 68 | 0.044118 | 4.7772\% | 4.6385\% | 3.2 | 3.2 | 92\% | 95\% |
| 79 | 2 | 64 | 0.031250 | 5.3635\% | 5.1147\% | 3.4 | 3.3 | 58\% | 61\% |
| 80 | 3 | 67 | 0.044776 | 5.9000\% | 5.5792\% | 4.0 | 3.7 | 76\% | 80\% |
| 81 | 2 | 62 | 0.032258 | 6.5658\% | 6.1490\% | 4.1 | 3.8 | 49\% | 52\% |
| 82 | 5 | 63 | 0.079365 | 7.1901\% | 6.7310\% | 4.5 | 4.2 | 110\% | 118\% |
| 83 | 2 | 56 | 0.035714 | 7.8536\% | 7.4502\% | 4.4 | 4.2 | 45\% | 48\% |
| 84 | 2 | 51 | 0.039216 | 8.6086\% | 8.2641\% | 4.4 | 4.2 | 46\% | 47\% |
| 85 | 4 | 52 | 0.076923 | 9.2257\% | 9.0839\% | 4.8 | 4.7 | 83\% | 85\% |
| 86 | 4 | 44 | 0.090909 | 10.3482\% | 9.9136\% | 4.6 | 4.4 | 88\% | 92\% |
| 87 | 6 | 40 | 0.150000 | 11.6528\% | 10.8825\% | 4.7 | 4.4 | 129\% | 138\% |
| 88 | 4 | 32 | 0.125000 | 13.0880\% | 12.0218\% | 4.2 | 3.8 | 96\% | 104\% |
| 89 | 3 | 18 | 0.166667 | 14.3364\% | 13.1263\% | 2.6 | 2.4 | 116\% | 127\% |
| 90 | 1 | 12 | 0.083333 | 16.0483\% | 14.6450\% | 1.9 | 1.8 | 52\% | 57\% |
| 91 | 0 | 13 | 0.000000 | 17.1868\% | 15.4329\% | 2.2 | 2.0 | 0\% | 0\% |
| 92 | 1 | 10 | 0.100000 | 18.4049\% | 16.2698\% | 1.8 | 1.6 | 54\% | 61\% |
| 93 | 2 | 12 | 0.166667 | 19.9897\% | 17.7086\% | 2.4 | 2.1 | 83\% | 94\% |
| 94 | 1 | 8 | 0.125000 | 21.4615\% | 19.2250\% | 1.7 | 1.5 | 58\% | 65\% |
| 95 | 3 | 3 | 1.000000 | 23.5545\% | 21.3923\% | 0.7 | 0.6 | 425\% | 467\% |
| 96 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 97 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 98 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 93 | 3,698 |  |  |  | 108.0 | 100.3 | 86\% | 93\% |
| 100 or more | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| Total | 93 | 3,698 |  |  |  | 108.0 | 100.3 | 86\% | 93\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

|  | TABLE 1A GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 45-49 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 50-54 | 2 | 133 | 0.015038 | 0.5957\% | 0.4598\% | 0.8 | 0.6 | 252\% | 327\% |
| 55-59 | 4 | 525 | 0.007619 | 0.8900\% | 0.6795\% | 4.7 | 3.6 | 86\% | 112\% |
| 60-64 | 8 | 863 | 0.009270 | 1.2689\% | 1.0576\% | 11.0 | 9.1 | 73\% | 88\% |
| 65-69 | 11 | 641 | 0.017161 | 1.8150\% | 1.6567\% | 11.6 | 10.6 | 95\% | 104\% |
| 70-74 | 10 | 351 | 0.028490 | 2.5602\% | 2.6439\% | 9.0 | 9.3 | 111\% | 108\% |
| 75-79 | 10 | 322 | 0.031056 | 4.3060\% | 4.3154\% | 13.9 | 13.9 | 72\% | 72\% |
| 80-84 | 12 | 281 | 0.042705 | 7.2794\% | 6.8711\% | 20.5 | 19.3 | 59\% | 62\% |
| 85-89 | 20 | 179 | 0.111732 | 11.2657\% | 10.6630\% | 20.2 | 19.1 | 99\% | 105\% |
| 90-94 | 4 | 43 | 0.093023 | 18.9372\% | 17.1871\% | 8.1 | 7.4 | 49\% | 54\% |
| 95-99 | 2 | 2 | 1.000000 | 25.3168\% | 23.4887\% | 0.5 | 0.5 | 395\% | 426\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 83 | 3,340 |  |  |  | 100.2 | 93.4 | 83\% | 89\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA MORTALITY EXPERIENCE OF SERVICE RETIREES WOMEN

|  | TABLE 1B GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } /(\mathbf{3}) \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 45-49 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 50-54 | 0 | 30 | 0.000000 | 0.3398\% | 0.3171\% | 0.1 | 0.1 | 0\% | 0\% |
| 55-59 | 1 | 45 | 0.022222 | 0.5679\% | 0.4642\% | 0.3 | 0.2 | 391\% | 479\% |
| 60-64 | 1 | 78 | 0.012821 | 1.0096\% | 0.7865\% | 0.8 | 0.6 | 127\% | 163\% |
| 65-69 | 1 | 95 | 0.010526 | 1.4026\% | 1.2049\% | 1.3 | 1.1 | 75\% | 87\% |
| 70-74 | 0 | 51 | 0.000000 | 2.0270\% | 1.9882\% | 1.0 | 1.0 | 0\% | 0\% |
| 75-79 | 2 | 21 | 0.095238 | 3.0316\% | 3.0568\% | 0.6 | 0.6 | 314\% | 312\% |
| 80-84 | 2 | 18 | 0.111111 | 4.9270\% | 4.8338\% | 0.9 | 0.9 | 226\% | 230\% |
| 85-89 | 1 | 7 | 0.142857 | 8.7827\% | 8.0228\% | 0.6 | 0.6 | 163\% | 178\% |
| 90-94 | 1 | 12 | 0.083333 | 16.4436\% | 13.8603\% | 2.0 | 1.7 | 51\% | 60\% |
| 95-99 | 1 | 1 | 1.000000 | 20.0298\% | 17.1994\% | 0.2 | 0.2 | 499\% | 581\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 10 | 358 |  |  |  | 7.8 | 7.0 | 128\% | 143\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA MORTALITY EXPERIENCE OF SERVICE RETIREES <br> MEN AND WOMEN

| Age | TABLE 1C GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 45-49 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 50-54 | 2 | 163 | 0.012270 | 0.5486\% | 0.4335\% | 0.9 | 0.7 | 224\% | 283\% |
| 55-59 | 5 | 570 | 0.008772 | 0.8646\% | 0.6625\% | 4.9 | 3.8 | 101\% | 132\% |
| 60-64 | 9 | 941 | 0.009564 | 1.2474\% | 1.0352\% | 11.7 | 9.7 | 77\% | 92\% |
| 65-69 | 12 | 736 | 0.016304 | 1.7618\% | 1.5984\% | 13.0 | 11.8 | 93\% | 102\% |
| 70-74 | 10 | 402 | 0.024876 | 2.4925\% | 2.5607\% | 10.0 | 10.3 | 100\% | 97\% |
| 75-79 | 12 | 343 | 0.034985 | 4.2280\% | 4.2384\% | 14.5 | 14.5 | 83\% | 83\% |
| 80-84 | 14 | 299 | 0.046823 | 7.1378\% | 6.7484\% | 21.3 | 20.2 | 66\% | 69\% |
| 85-89 | 21 | 186 | 0.112903 | 11.1723\% | 10.5636\% | 20.8 | 19.6 | 101\% | 107\% |
| 90-94 | 5 | 55 | 0.090909 | 18.3932\% | 16.4613\% | 10.1 | 9.1 | 49\% | 55\% |
| 95-99 | 3 | 3 | 1.000000 | 23.5545\% | 21.3923\% | 0.7 | 0.6 | 425\% | 467\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 93 | 3,698 |  |  |  | 108.0 | 100.3 | 86\% | 93\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

|  | TABLE 1A |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013Expected Deaths |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 0 | N/A | 0.1641\% | 0.1954\% | 0 | 0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.2095\% | 0.2139\% | 0 | 0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.2524\% | 0.2335\% | 0 | 0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.2930\% | 0.2539\% | 0 | 0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.3309\% | 0.2753\% | 0 | 0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.3623\% | 0.2973\% | 0 | 0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.3902\% | 0.3200\% | 0 | 0 | 0\% | 0\% |
| 48 | 0 | 1 | 0.000000 | 0.4150\% | 0.3435\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 1 | 0.000000 | 0.4365\% | 0.3677\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 1 | 22 | 0.045455 | 0.4548\% | 0.3928\% | 0.1 | 0.1 | 999\% | 1157\% |
| 51 | 0 | 78 | 0.000000 | 0.5164\% | 0.4194\% | 0.4 | 0.3 | 0\% | 0\% |
| 52 | 1 | 99 | 0.010101 | 0.5801\% | 0.4482\% | 0.6 | 0.4 | 174\% | 225\% |
| 53 | 0 | 143 | 0.000000 | 0.6492\% | 0.4800\% | 0.9 | 0.7 | 0\% | 0\% |
| 54 | 2 | 171 | 0.011696 | 0.7209\% | 0.5159\% | 1.2 | 0.9 | 162\% | 227\% |
| 55 | 0 | 214 | 0.000000 | 0.7992\% | 0.5571\% | 1.7 | 1.2 | 0\% | 0\% |
| 56 | 0 | 275 | 0.000000 | 0.8580\% | 0.6045\% | 2.4 | 1.7 | 0\% | 0\% |
| 57 | 6 | 308 | 0.019481 | 0.9171\% | 0.6597\% | 2.8 | 2.0 | 212\% | 295\% |
| 58 | 0 | 323 | 0.000000 | 0.9770\% | 0.7235\% | 3.2 | 2.3 | 0\% | 0\% |
| 59 | 2 | 338 | 0.005917 | 1.0322\% | 0.7969\% | 3.5 | 2.7 | 57\% | 74\% |
| 60 | 2 | 333 | 0.006006 | 1.0873\% | 0.8809\% | 3.6 | 2.9 | 55\% | 68\% |
| 61 | 2 | 338 | 0.005917 | 1.2062\% | 0.9757\% | 4.1 | 3.3 | 49\% | 61\% |
| 62 | 6 | 357 | 0.016807 | 1.3166\% | 1.0811\% | 4.7 | 3.9 | 128\% | 155\% |
| 63 | 4 | 339 | 0.011799 | 1.4312\% | 1.1973\% | 4.9 | 4.1 | 82\% | 99\% |
| 64 | 1 | 315 | 0.003175 | 1.5362\% | 1.3248\% | 4.8 | 4.2 | 21\% | 24\% |
| 65 | 5 | 294 | 0.017007 | 1.6380\% | 1.4644\% | 4.8 | 4.3 | 104\% | 116\% |
| 66 | 5 | 261 | 0.019157 | 1.7825\% | 1.6171\% | 4.7 | 4.2 | 107\% | 118\% |
| 67 | 7 | 235 | 0.029787 | 1.9185\% | 1.7845\% | 4.5 | 4.2 | 155\% | 167\% |
| 68 | 4 | 215 | 0.018605 | 2.0444\% | 1.9673\% | 4.4 | 4.2 | 91\% | 95\% |
| 69 | 4 | 211 | 0.018957 | 2.1797\% | 2.1683\% | 4.6 | 4.6 | 87\% | 87\% |
| 70 | 4 | 195 | 0.020513 | 2.3034\% | 2.3885\% | 4.5 | 4.7 | 89\% | 86\% |
| 71 | 5 | 179 | 0.027933 | 2.5097\% | 2.6303\% | 4.5 | 4.7 | 111\% | 106\% |
| 72 | 5 | 169 | 0.029586 | 2.7205\% | 2.8957\% | 4.6 | 4.9 | 109\% | 102\% |
| 73 | 9 | 171 | 0.052632 | 2.9354\% | 3.1869\% | 5.0 | 5.4 | 179\% | 165\% |
| 74 | 2 | 172 | 0.011628 | 3.1547\% | 3.5059\% | 5.4 | 6.0 | 37\% | 33\% |
| 75 | 5 | 176 | 0.028409 | 3.3958\% | 3.8549\% | 6.0 | 6.8 | 84\% | 74\% |
| 76 | 10 | 174 | 0.057471 | 3.9148\% | 4.2378\% | 6.8 | 7.4 | 147\% | 136\% |
| 77 | 5 | 168 | 0.029762 | 4.4674\% | 4.6563\% | 7.5 | 7.8 | 67\% | 64\% |
| 78 | 8 | 162 | 0.049383 | 5.0367\% | 5.1135\% | 8.2 | 8.3 | 98\% | 97\% |
| 79 | 7 | 162 | 0.043210 | 5.6231\% | 5.6144\% | 9.1 | 9.1 | 77\% | 77\% |
| 80 | 9 | 155 | 0.058065 | 6.2265\% | 6.1638\% | 9.7 | 9.6 | 93\% | 94\% |
| 81 | 4 | 141 | 0.028369 | 6.8815\% | 6.7655\% | 9.7 | 9.5 | 41\% | 42\% |
| 82 | 10 | 139 | 0.071942 | 7.5426\% | 7.4253\% | 10.5 | 10.3 | 95\% | 97\% |
| 83 | 6 | 128 | 0.046875 | 8.1690\% | 8.1494\% | 10.5 | 10.4 | 57\% | 58\% |
| 84 | 11 | 117 | 0.094017 | 8.8398\% | 8.9441\% | 10.3 | 10.5 | 106\% | 105\% |
| 85 | 10 | 106 | 0.094340 | 9.4694\% | 9.8162\% | 10.0 | 10.4 | 100\% | 96\% |
| 86 | 9 | 89 | 0.101124 | 10.6877\% | 10.7724\% | 9.5 | 9.6 | 95\% | 94\% |
| 87 | 14 | 78 | 0.179487 | 12.0102\% | 11.8205\% | 9.4 | 9.2 | 149\% | 152\% |
| 88 | 7 | 59 | 0.118644 | 13.3898\% | 12.9666\% | 7.9 | 7.7 | 89\% | 91\% |
| 89 | 9 | 42 | 0.214286 | 14.7533\% | 14.2195\% | 6.2 | 6.0 | 145\% | 151\% |
| 90 | 4 | 30 | 0.133333 | 16.2424\% | 15.5886\% | 4.9 | 4.7 | 82\% | 86\% |
| 91 | 5 | 24 | 0.208333 | 18.0401\% | 17.0845\% | 4.3 | 4.1 | 115\% | 122\% |
| 92 | 4 | 15 | 0.266667 | 19.9041\% | 18.7143\% | 3.0 | 2.8 | 134\% | 142\% |
| 93 | 1 | 10 | 0.100000 | 21.6460\% | 20.4852\% | 2.2 | 2.0 | 46\% | 49\% |
| 94 | 1 | 5 | 0.200000 | 23.4023\% | 22.4306\% | 1.2 | 1.1 | 85\% | 89\% |
| 95 | 2 | 2 | 1.000000 | 25.4693\% | 24.5733\% | 0.5 | 0.5 | 393\% | 407\% |
| 96 | 0 | 0 | N/A | 27.3348\% | 26.9426\% | 0 | 0 | 0\% | 0\% |
| 97 | 0 | 0 | N/A | 29.1300\% | 29.5404\% | 0 | 0 | 0\% | 0\% |
| 98 | 0 | 0 | N/A | 31.0896\% | 32.3888\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 32.6998\% | 35.5155\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 218 | 7,739 |  |  |  | 233.1 | 225.7 | 94\% | 97\% |
| 100 or more | 0 | 0 | N/A | 37.1685\% | 47.0399\% | 0 | 0 | 0\% | 0\% |
| Total | 218 | 7,739 |  |  |  | 233.1 | 225.7 | 94\% | 97\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA MORTALITY EXPERIENCE OF SERVICE RETIREES WOMEN

| Age | TABLE 1B |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 0 | N/A | 0.0819\% | 0.1596\% | 0 | 0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.0908\% | 0.1706\% | 0 | 0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.1020\% | 0.1812\% | 0 | 0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.1156\% | 0.1914\% | 0 | 0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.1313\% | 0.2012\% | 0 | 0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.1492\% | 0.2105\% | 0 | 0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.1693\% | 0.2194\% | 0 | 0 | 0\% | 0\% |
| 48 | 0 | 1 | 0.000000 | 0.1919\% | 0.2277\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 1 | 0.000000 | 0.2162\% | 0.2358\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 1 | 0.000000 | 0.2429\% | 0.2488\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 9 | 0.000000 | 0.2752\% | 0.2666\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 10 | 0.000000 | 0.3119\% | 0.2895\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 18 | 0.000000 | 0.3517\% | 0.3177\% | 0.1 | 0.1 | 0\% | 0\% |
| 54 | 0 | 18 | 0.000000 | 0.3952\% | 0.3513\% | 0.1 | 0.1 | 0\% | 0\% |
| 55 | 0 | 20 | 0.000000 | 0.4427\% | 0.3906\% | 0.1 | 0.1 | 0\% | 0\% |
| 56 | 0 | 20 | 0.000000 | 0.5143\% | 0.4353\% | 0.1 | 0.1 | 0\% | 0\% |
| 57 | 1 | 19 | 0.052632 | 0.5899\% | 0.4857\% | 0.1 | 0.1 | 892\% | 1084\% |
| 58 | 0 | 21 | 0.000000 | 0.6677\% | 0.5414\% | 0.1 | 0.1 | 0\% | 0\% |
| 59 | 0 | 25 | 0.000000 | 0.7498\% | 0.6025\% | 0.2 | 0.2 | 0\% | 0\% |
| 60 | 0 | 31 | 0.000000 | 0.8360\% | 0.6685\% | 0.3 | 0.2 | 0\% | 0\% |
| 61 | 1 | 34 | 0.029412 | 0.9283\% | 0.7392\% | 0.3 | 0.3 | 317\% | 398\% |
| 62 | 0 | 34 | 0.000000 | 1.0063\% | 0.8160\% | 0.3 | 0.3 | 0\% | 0\% |
| 63 | 0 | 41 | 0.000000 | 1.0825\% | 0.8998\% | 0.4 | 0.4 | 0\% | 0\% |
| 64 | 0 | 37 | 0.000000 | 1.1636\% | 0.9910\% | 0.4 | 0.4 | 0\% | 0\% |
| 65 | 0 | 37 | 0.000000 | 1.2496\% | 1.0901\% | 0.5 | 0.4 | 0\% | 0\% |
| 66 | 1 | 39 | 0.025641 | 1.3417\% | 1.1984\% | 0.5 | 0.5 | 191\% | 214\% |
| 67 | 1 | 36 | 0.027778 | 1.4451\% | 1.3166\% | 0.5 | 0.5 | 192\% | 211\% |
| 68 | 0 | 32 | 0.000000 | 1.5535\% | 1.4461\% | 0.5 | 0.5 | 0\% | 0\% |
| 69 | 0 | 26 | 0.000000 | 1.6294\% | 1.5881\% | 0.4 | 0.4 | 0\% | 0\% |
| 70 | 1 | 22 | 0.045455 | 1.6985\% | 1.7437\% | 0.4 | 0.4 | 268\% | 261\% |
| 71 | 0 | 16 | 0.000000 | 1.8767\% | 1.9146\% | 0.3 | 0.3 | 0\% | 0\% |
| 72 | 0 | 17 | 0.000000 | 2.0590\% | 2.1020\% | 0.4 | 0.4 | 0\% | 0\% |
| 73 | 0 | 17 | 0.000000 | 2.2263\% | 2.3080\% | 0.4 | 0.4 | 0\% | 0\% |
| 74 | 0 | 17 | 0.000000 | 2.3996\% | 2.5337\% | 0.4 | 0.4 | 0\% | 0\% |
| 75 | 1 | 14 | 0.071429 | 2.5562\% | 2.7819\% | 0.4 | 0.4 | 279\% | 257\% |
| 76 | 0 | 13 | 0.000000 | 2.8870\% | 3.0552\% | 0.4 | 0.4 | 0\% | 0\% |
| 77 | 0 | 12 | 0.000000 | 3.2341\% | 3.3563\% | 0.4 | 0.4 | 0\% | 0\% |
| 78 | 1 | 11 | 0.090909 | 3.5667\% | 3.6878\% | 0.4 | 0.4 | 255\% | 247\% |
| 79 | 0 | 9 | 0.000000 | 3.8992\% | 4.0546\% | 0.4 | 0.4 | 0\% | 0\% |
| 80 | 2 | 10 | 0.200000 | 4.2318\% | 4.4584\% | 0.4 | 0.4 | 473\% | 449\% |
| 81 | 0 | 8 | 0.000000 | 4.7578\% | 4.9043\% | 0.4 | 0.4 | 0\% | 0\% |
| 82 | 1 | 9 | 0.111111 | 5.2939\% | 5.3948\% | 0.5 | 0.5 | 210\% | 206\% |
| 83 | 0 | 7 | 0.000000 | 5.8399\% | 5.9362\% | 0.4 | 0.4 | 0\% | 0\% |
| 84 | 1 | 6 | 0.166667 | 6.3959\% | 6.5306\% | 0.4 | 0.4 | 261\% | 255\% |
| 85 | 1 | 7 | 0.142857 | 6.9972\% | 7.1838\% | 0.5 | 0.5 | 204\% | 199\% |
| 86 | 0 | 6 | 0.000000 | 8.0199\% | 7.8991\% | 0.5 | 0.5 | 0\% | 0\% |
| 87 | 2 | 7 | 0.285714 | 9.0525\% | 8.6794\% | 0.6 | 0.6 | 316\% | 329\% |
| 88 | 0 | 5 | 0.000000 | 10.0447\% | 9.5319\% | 0.5 | 0.5 | 0\% | 0\% |
| 89 | 0 | 5 | 0.000000 | 11.0925\% | 10.4649\% | 0.6 | 0.5 | 0\% | 0\% |
| 90 | 0 | 4 | 0.000000 | 12.0898\% | 11.4834\% | 0.5 | 0.5 | 0\% | 0\% |
| 91 | 0 | 4 | 0.000000 | 13.8041\% | 12.5946\% | 0.6 | 0.5 | 0\% | 0\% |
| 92 | 0 | 4 | 0.000000 | 15.4621\% | 13.8048\% | 0.6 | 0.6 | 0\% | 0\% |
| 93 | 1 | 4 | 0.250000 | 17.1684\% | 15.1237\% | 0.7 | 0.6 | 146\% | 165\% |
| 94 | 0 | 4 | 0.000000 | 18.6886\% | 16.5652\% | 0.7 | 0.7 | 0\% | 0\% |
| 95 | 1 | 2 | 0.500000 | 20.1504\% | 18.1442\% | 0.4 | 0.4 | 248\% | 276\% |
| 96 | 1 | 1 | 1.000000 | 21.3100\% | 19.8879\% | 0.2 | 0.2 | 469\% | 503\% |
| 97 | 0 | 0 | N/A | 22.4283\% | 21.7949\% | 0 | 0 | 0\% | 0\% |
| 98 | 0 | 0 | N/A | 23.1412\% | 23.8896\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 23.5424\% | 26.1831\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 17 | 751 |  |  |  | 17.2 | 16.3 | 99\% | 104\% |
| 100 or more | 0 | 0 | N/A | 25.4498\% | 34.6676\% | 0 | 0 | 0\% | 0\% |
| Total | 17 | 751 |  |  |  | 17.2 | 16.3 | 99\% | 104\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA MORTALITY EXPERIENCE OF SERVICE RETIREES <br> MEN AND WOMEN

|  | TABLE 1C |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 48 | 0 | 2 | 0.000000 | 0.3035\% | 0.2856\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 2 | 0.000000 | 0.3264\% | 0.3018\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 1 | 23 | 0.043478 | 0.4456\% | 0.3865\% | 0.1 | 0.1 | 976\% | 1125\% |
| 51 | 0 | 87 | 0.000000 | 0.4914\% | 0.4036\% | 0.4 | 0.4 | 0\% | 0\% |
| 52 | 1 | 109 | 0.009174 | 0.5555\% | 0.4336\% | 0.6 | 0.5 | 165\% | 212\% |
| 53 | 0 | 161 | 0.000000 | 0.6159\% | 0.4619\% | 1.0 | 0.7 | 0\% | 0\% |
| 54 | 2 | 189 | 0.010582 | 0.6899\% | 0.5002\% | 1.3 | 0.9 | 153\% | 212\% |
| 55 | 0 | 234 | 0.000000 | 0.7687\% | 0.5428\% | 1.8 | 1.3 | 0\% | 0\% |
| 56 | 0 | 295 | 0.000000 | 0.8347\% | 0.5930\% | 2.5 | 1.7 | 0\% | 0\% |
| 57 | 7 | 327 | 0.021407 | 0.8981\% | 0.6496\% | 2.9 | 2.1 | 238\% | 330\% |
| 58 | 0 | 344 | 0.000000 | 0.9581\% | 0.7124\% | 3.3 | 2.5 | 0\% | 0\% |
| 59 | 2 | 363 | 0.005510 | 1.0128\% | 0.7835\% | 3.7 | 2.8 | 54\% | 70\% |
| 60 | 2 | 364 | 0.005495 | 1.0659\% | 0.8628\% | 3.9 | 3.1 | 52\% | 64\% |
| 61 | 3 | 372 | 0.008065 | 1.1808\% | 0.9541\% | 4.4 | 3.5 | 68\% | 85\% |
| 62 | 6 | 391 | 0.015345 | 1.2896\% | 1.0580\% | 5.0 | 4.1 | 119\% | 145\% |
| 63 | 4 | 380 | 0.010526 | 1.3936\% | 1.1652\% | 5.3 | 4.4 | 76\% | 90\% |
| 64 | 1 | 352 | 0.002841 | 1.4970\% | 1.2897\% | 5.3 | 4.5 | 19\% | 22\% |
| 65 | 5 | 331 | 0.015106 | 1.5946\% | 1.4226\% | 5.3 | 4.7 | 95\% | 106\% |
| 66 | 6 | 300 | 0.020000 | 1.7252\% | 1.5627\% | 5.2 | 4.7 | 116\% | 128\% |
| 67 | 8 | 271 | 0.029520 | 1.8556\% | 1.7223\% | 5.0 | 4.7 | 159\% | 171\% |
| 68 | 4 | 247 | 0.016194 | 1.9808\% | 1.8998\% | 4.9 | 4.7 | 82\% | 85\% |
| 69 | 4 | 237 | 0.016878 | 2.1193\% | 2.1046\% | 5.0 | 5.0 | 80\% | 80\% |
| 70 | 5 | 217 | 0.023041 | 2.2421\% | 2.3231\% | 4.9 | 5.0 | 103\% | 99\% |
| 71 | 5 | 195 | 0.025641 | 2.4578\% | 2.5716\% | 4.8 | 5.0 | 104\% | 100\% |
| 72 | 5 | 186 | 0.026882 | 2.6600\% | 2.8231\% | 4.9 | 5.3 | 101\% | 95\% |
| 73 | 9 | 188 | 0.047872 | 2.8713\% | 3.1074\% | 5.4 | 5.8 | 167\% | 154\% |
| 74 | 2 | 189 | 0.010582 | 3.0868\% | 3.4185\% | 5.8 | 6.5 | 34\% | 31\% |
| 75 | 6 | 190 | 0.031579 | 3.3339\% | 3.7759\% | 6.3 | 7.2 | 95\% | 84\% |
| 76 | 10 | 187 | 0.053476 | 3.8433\% | 4.1556\% | 7.2 | 7.8 | 139\% | 129\% |
| 77 | 5 | 180 | 0.027778 | 4.3852\% | 4.5696\% | 7.9 | 8.2 | 63\% | 61\% |
| 78 | 9 | 173 | 0.052023 | 4.9432\% | 5.0228\% | 8.6 | 8.7 | 105\% | 104\% |
| 79 | 7 | 171 | 0.040936 | 5.5324\% | 5.5323\% | 9.5 | 9.5 | 74\% | 74\% |
| 80 | 11 | 165 | 0.066667 | 6.1056\% | 6.0604\% | 10.1 | 10.0 | 109\% | 110\% |
| 81 | 4 | 149 | 0.026846 | 6.7675\% | 6.6656\% | 10.1 | 9.9 | 40\% | 40\% |
| 82 | 11 | 148 | 0.074324 | 7.4059\% | 7.3018\% | 11.0 | 10.8 | 100\% | 102\% |
| 83 | 6 | 135 | 0.044444 | 8.0482\% | 8.0346\% | 10.9 | 10.8 | 55\% | 55\% |
| 84 | 12 | 123 | 0.097561 | 8.7206\% | 8.8263\% | 10.7 | 10.9 | 112\% | 111\% |
| 85 | 11 | 113 | 0.097345 | 9.3163\% | 9.6532\% | 10.5 | 10.9 | 104\% | 101\% |
| 86 | 9 | 95 | 0.094737 | 10.5192\% | 10.5909\% | 10.0 | 10.1 | 90\% | 89\% |
| 87 | 16 | 85 | 0.188235 | 11.7666\% | 11.5618\% | 10.0 | 9.8 | 160\% | 163\% |
| 88 | 7 | 64 | 0.109375 | 13.1285\% | 12.6983\% | 8.4 | 8.1 | 83\% | 86\% |
| 89 | 9 | 47 | 0.191489 | 14.3639\% | 13.8200\% | 6.8 | 6.5 | 133\% | 139\% |
| 90 | 4 | 34 | 0.117647 | 15.7539\% | 15.1057\% | 5.4 | 5.1 | 75\% | 78\% |
| 91 | 5 | 28 | 0.178571 | 17.4350\% | 16.4431\% | 4.9 | 4.6 | 102\% | 109\% |
| 92 | 4 | 19 | 0.210526 | 18.9689\% | 17.6808\% | 3.6 | 3.4 | 111\% | 119\% |
| 93 | 2 | 14 | 0.142857 | 20.3667\% | 18.9533\% | 2.9 | 2.7 | 70\% | 75\% |
| 94 | 1 | 9 | 0.111111 | 21.3073\% | 19.8237\% | 1.9 | 1.8 | 52\% | 56\% |
| 95 | 3 | 4 | 0.750000 | 22.8099\% | 21.3587\% | 0.9 | 0.9 | 329\% | 351\% |
| 96 | 1 | 1 | 1.000000 | 21.3100\% | 19.8879\% | 0.2 | 0.2 | 469\% | 503\% |
| 97 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 98 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 235 | 8,490 |  |  |  | 250.3 | 242.0 | 94\% | 97\% |
| 100 or more | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| Total | 235 | 8,490 |  |  |  | 250.3 | 242.0 | 94\% | 97\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

| Age | TABLE 1A GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 45-49 | 0 | 2 | 0.000000 | 0.4258\% | 0.3556\% | 0.0 | 0.0 | 0\% | 0\% |
| 50-54 | 4 | 513 | 0.007797 | 0.6312\% | 0.4729\% | 3.2 | 2.4 | 124\% | 165\% |
| 55-59 | 8 | 1,458 | 0.005487 | 0.9286\% | 0.6802\% | 13.5 | 9.9 | 59\% | 81\% |
| 60-64 | 15 | 1,682 | 0.008918 | 1.3132\% | 1.0893\% | 22.1 | 18.3 | 68\% | 82\% |
| 65-69 | 25 | 1,216 | 0.020559 | 1.8891\% | 1.7701\% | 23.0 | 21.5 | 109\% | 116\% |
| 70-74 | 25 | 886 | 0.028217 | 2.7119\% | 2.9051\% | 24.0 | 25.7 | 104\% | 97\% |
| 75-79 | 35 | 842 | 0.041568 | 4.4611\% | 4.6746\% | 37.6 | 39.4 | 93\% | 89\% |
| 80-84 | 40 | 680 | 0.058824 | 7.4466\% | 7.3985\% | 50.6 | 50.3 | 79\% | 80\% |
| 85-89 | 49 | 374 | 0.131016 | 11.5011\% | 11.4532\% | 43.0 | 42.8 | 114\% | 114\% |
| 90-94 | 15 | 84 | 0.178571 | 18.4794\% | 17.5644\% | 15.5 | 14.8 | 97\% | 102\% |
| 95-99 | 2 | 2 | 1.000000 | 25.4693\% | 24.5733\% | 0.5 | 0.5 | 393\% | 407\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 218 | 7,739 |  |  |  | 233.1 | 225.7 | 94\% | 97\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA MORTALITY EXPERIENCE OF SERVICE RETIREES WOMEN

|  | TABLE 1B GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 45-49 | 0 | 2 | 0.000000 | 0.2041\% | 0.2318\% | 0.0 | 0.0 | 0\% | 0\% |
| 50-54 | 0 | 56 | 0.000000 | 0.3443\% | 0.3140\% | 0.2 | 0.2 | 0\% | 0\% |
| 55-59 | 1 | 105 | 0.009524 | 0.6011\% | 0.4969\% | 0.6 | 0.5 | 158\% | 192\% |
| 60-64 | 1 | 177 | 0.005650 | 1.0120\% | 0.8314\% | 1.8 | 1.5 | 56\% | 68\% |
| 65-69 | 2 | 170 | 0.011765 | 1.4274\% | 1.3061\% | 2.4 | 2.2 | 82\% | 90\% |
| 70-74 | 1 | 89 | 0.011236 | 2.0341\% | 2.1015\% | 1.8 | 1.9 | 55\% | 53\% |
| 75-79 | 2 | 59 | 0.033898 | 3.1602\% | 3.3220\% | 1.9 | 2.0 | 107\% | 102\% |
| 80-84 | 4 | 40 | 0.100000 | 5.1820\% | 5.3277\% | 2.1 | 2.1 | 193\% | 188\% |
| 85-89 | 3 | 30 | 0.100000 | 8.8718\% | 8.6141\% | 2.7 | 2.6 | 113\% | 116\% |
| 90-94 | 1 | 20 | 0.050000 | 15.4426\% | 13.9143\% | 3.1 | 2.8 | 32\% | 36\% |
| 95-99 | 2 | 3 | 0.666667 | 20.5369\% | 18.7254\% | 0.6 | 0.6 | 325\% | 356\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 17 | 751 |  |  |  | 17.2 | 16.3 | 99\% | 104\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA MORTALITY EXPERIENCE OF SERVICE RETIREES MEN AND WOMEN

|  | TABLE 1C GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 45-49 | 0 | 4 | 0.000000 | 0.3149\% | 0.2937\% | 0.0 | 0.0 | 0\% | 0\% |
| 50-54 | 4 | 569 | 0.007030 | 0.6030\% | 0.4573\% | 3.4 | 2.6 | 117\% | 154\% |
| 55-59 | 9 | 1,563 | 0.005758 | 0.9066\% | 0.6679\% | 14.2 | 10.4 | 64\% | 86\% |
| 60-64 | 16 | 1,859 | 0.008607 | 1.2846\% | 1.0648\% | 23.9 | 19.8 | 67\% | 81\% |
| 65-69 | 27 | 1,386 | 0.019481 | 1.8325\% | 1.7132\% | 25.4 | 23.7 | 106\% | 114\% |
| 70-74 | 26 | 975 | 0.026667 | 2.6500\% | 2.8318\% | 25.8 | 27.6 | 101\% | 94\% |
| 75-79 | 37 | 901 | 0.041065 | 4.3759\% | 4.5860\% | 39.4 | 41.3 | 94\% | 90\% |
| 80-84 | 44 | 720 | 0.061111 | 7.3208\% | 7.2835\% | 52.7 | 52.4 | 83\% | 84\% |
| 85-89 | 52 | 404 | 0.128713 | 11.3058\% | 11.2424\% | 45.7 | 45.4 | 114\% | 114\% |
| 90-94 | 16 | 104 | 0.153846 | 17.8954\% | 16.8624\% | 18.6 | 17.5 | 86\% | 91\% |
| 95-99 | 4 | 5 | 0.800000 | 22.5099\% | 21.0646\% | 1.1 | 1.1 | 355\% | 380\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 235 | 8,490 |  |  |  | 250.3 | 242.0 | 94\% | 97\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA MORTALITY EXPERIENCE OF SERVICE RETIREES MEN AND WOMEN

| Plan <br> Year <br> Ending <br> June 30, | TABLE 1D <br> Life Years Exposed | Actual <br> Deaths | Expected Deaths | 10-YEAR PERIOD ENDING 6/30/2013 $\qquad$ <br> Mortality Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / <br> Expected | $\begin{aligned} & \hline \text { Actual } \\ & \text { (3) } /(2) \\ & \hline \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2002 | 724 | 26 | 17.7 | 147\% | 3.5912\% | 2.4380\% |
| 2003 | 767 | 25 | 18.5 | 135\% | 3.2595\% | 2.4100\% |
| 2004 | 775 | 21 | 18.9 | 111\% | 2.7097\% | 2.4429\% |
| 2005 | 823 | 27 | 20.1 | 134\% | 3.2807\% | 2.4452\% |
| 2006 | 840 | 24 | 20.8 | 115\% | 2.8571\% | 2.4797\% |
| 2007 | 863 | 19 | 21.4 | 89\% | 2.2016\% | 2.4813\% |
| 2008 | 881 | 25 | 22.2 | 113\% | 2.8377\% | 2.5186\% |
| 2009 | 902 | 18 | 22.8 | 79\% | 1.9956\% | 2.5268\% |
| 2010 | 938 | 24 | 24.1 | 99\% | 2.5586\% | 2.5730\% |
| 2011 | 977 | 26 | 25.7 | 101\% | 2.6612\% | 2.6341\% |
| Total | 8,490 | 235 | 212.3 | 111\% | 2.7680\% | 2.5004\% |

[^11]
## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN

|  | TABLE 2A |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013Expected DeathsActual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed <br> (3) $x(6)$ | Expected (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 0 | N/A | 1.4444\% | 0.4277\% | 0 | 0 | 0\% | 0\% |
| 42 | 0 | 2 | 0.000000 | 1.4841\% | 0.5537\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 2 | 0.000000 | 1.5246\% | 0.6796\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 3 | 0.000000 | 1.5660\% | 0.8055\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 4 | 0.000000 | 1.6079\% | 0.9315\% | 0.1 | 0.0 | 0\% | 0\% |
| 46 | 0 | 4 | 0.000000 | 1.6532\% | 1.0574\% | 0.1 | 0.0 | 0\% | 0\% |
| 47 | 0 | 6 | 0.000000 | 1.6979\% | 1.1833\% | 0.1 | 0.1 | 0\% | 0\% |
| 48 | 0 | 7 | 0.000000 | 1.7687\% | 1.2873\% | 0.1 | 0.1 | 0\% | 0\% |
| 49 | 0 | 9 | 0.000000 | 1.8401\% | 1.3912\% | 0.2 | 0.1 | 0\% | 0\% |
| 50 | 0 | 13 | 0.000000 | 1.9120\% | 1.4952\% | 0.2 | 0.2 | 0\% | 0\% |
| 51 | 0 | 12 | 0.000000 | 2.0266\% | 1.5992\% | 0.2 | 0.2 | 0\% | 0\% |
| 52 | 2 | 15 | 0.133333 | 2.1447\% | 1.7031\% | 0.3 | 0.3 | 622\% | 783\% |
| 53 | 0 | 10 | 0.000000 | 2.2867\% | 1.7916\% | 0.2 | 0.2 | 0\% | 0\% |
| 54 | 0 | 8 | 0.000000 | 2.4343\% | 1.8801\% | 0.2 | 0.2 | 0\% | 0\% |
| 55 | 0 | 13 | 0.000000 | 2.6085\% | 1.9686\% | 0.3 | 0.3 | 0\% | 0\% |
| 56 | 1 | 12 | 0.083333 | 2.6895\% | 2.0571\% | 0.3 | 0.2 | 310\% | 405\% |
| 57 | 0 | 15 | 0.000000 | 2.7715\% | 2.1456\% | 0.4 | 0.3 | 0\% | 0\% |
| 58 | 2 | 16 | 0.125000 | 2.8551\% | 2.2383\% | 0.5 | 0.4 | 438\% | 558\% |
| 59 | 1 | 17 | 0.058824 | 2.9164\% | 2.3309\% | 0.5 | 0.4 | 202\% | 252\% |
| 60 | 0 | 24 | 0.000000 | 2.9783\% | 2.4235\% | 0.7 | 0.6 | 0\% | 0\% |
| 61 | 0 | 28 | 0.000000 | 3.1350\% | 2.5162\% | 0.9 | 0.7 | 0\% | 0\% |
| 62 | 2 | 34 | 0.058824 | 3.2734\% | 2.6088\% | 1.1 | 0.9 | 180\% | 225\% |
| 63 | 1 | 30 | 0.033333 | 3.4465\% | 2.7383\% | 1.0 | 0.8 | 97\% | 122\% |
| 64 | 1 | 27 | 0.037037 | 3.6008\% | 2.8677\% | 1.0 | 0.8 | 103\% | 129\% |
| 65 | 1 | 20 | 0.050000 | 3.7650\% | 2.9972\% | 0.8 | 0.6 | 133\% | 167\% |
| 66 | 0 | 16 | 0.000000 | 3.8492\% | 3.1266\% | 0.6 | 0.5 | 0\% | 0\% |
| 67 | 1 | 16 | 0.062500 | 3.9079\% | 3.2560\% | 0.6 | 0.5 | 160\% | 192\% |
| 68 | 0 | 12 | 0.000000 | 3.9758\% | 3.4680\% | 0.5 | 0.4 | 0\% | 0\% |
| 69 | 0 | 11 | 0.000000 | 4.0089\% | 3.6800\% | 0.4 | 0.4 | 0\% | 0\% |
| 70 | 0 | 9 | 0.000000 | 4.0789\% | 3.8920\% | 0.4 | 0.4 | 0\% | 0\% |
| 71 | 1 | 9 | 0.111111 | 4.2824\% | 4.1040\% | 0.4 | 0.4 | 259\% | 271\% |
| 72 | 0 | 7 | 0.000000 | 4.5348\% | 4.3160\% | 0.3 | 0.3 | 0\% | 0\% |
| 73 | 0 | 7 | 0.000000 | 4.8103\% | 4.6694\% | 0.3 | 0.3 | 0\% | 0\% |
| 74 | 0 | 5 | 0.000000 | 5.1099\% | 5.0227\% | 0.3 | 0.3 | 0\% | 0\% |
| 75 | 0 | 5 | 0.000000 | 5.4793\% | 5.3761\% | 0.3 | 0.3 | 0\% | 0\% |
| 76 | 0 | 4 | 0.000000 | 5.9251\% | 5.7294\% | 0.2 | 0.2 | 0\% | 0\% |
| 77 | 1 | 2 | 0.500000 | 6.4623\% | 6.0828\% | 0.1 | 0.1 | 774\% | 822\% |
| 78 | 0 | 3 | 0.000000 | 7.0498\% | 6.6494\% | 0.2 | 0.2 | 0\% | 0\% |
| 79 | 0 | 3 | 0.000000 | 7.6912\% | 7.2161\% | 0.2 | 0.2 | 0\% | 0\% |
| 80 | 1 | 5 | 0.200000 | 8.3900\% | 7.7827\% | 0.4 | 0.4 | 238\% | 257\% |
| 81 | 2 | 4 | 0.500000 | 9.1500\% | 8.3493\% | 0.4 | 0.3 | 546\% | 599\% |
| 82 | 0 | 3 | 0.000000 | 9.9739\% | 8.9159\% | 0.3 | 0.3 | 0\% | 0\% |
| 83 | 1 | 3 | 0.333333 | 10.7832\% | 9.7808\% | 0.3 | 0.3 | 309\% | 341\% |
| 84 | 0 | 1 | 0.000000 | 11.7507\% | 10.6456\% | 0.1 | 0.1 | 0\% | 0\% |
| 85 | 0 | 2 | 0.000000 | 12.7010\% | 11.5105\% | 0.3 | 0.2 | 0\% | 0\% |
| 86 | 0 | 2 | 0.000000 | 13.4167\% | 12.3753\% | 0.3 | 0.2 | 0\% | 0\% |
| 87 | 0 | 2 | 0.000000 | 14.0240\% | 13.2402\% | 0.3 | 0.3 | 0\% | 0\% |
| 88 | 0 | 1 | 0.000000 | 14.7914\% | 14.5013\% | 0.1 | 0.1 | 0\% | 0\% |
| 89 | 0 | 0 | N/A | 15.4730\% | 15.7625\% | 0 | 0 | 0\% | 0\% |
| 90 | 0 | 0 | N/A | 16.3129\% | 17.0236\% | 0 | 0 | 0\% | 0\% |
| 91 | 0 | 0 | N/A | 18.1428\% | 18.2847\% | 0 | 0 | 0\% | 0\% |
| 92 | 0 | 0 | N/A | 20.3472\% | 19.5459\% | 0 | 0 | 0\% | 0\% |
| 93 | 0 | 0 | N/A | 22.3332\% | 21.3144\% | 0 | 0 | 0\% | 0\% |
| 94 | 0 | 0 | N/A | 24.2739\% | 23.0829\% | 0 | 0 | 0\% | 0\% |
| 95 | 0 | 0 | N/A | 26.4093\% | 24.8515\% | 0 | 0 | 0\% | 0\% |
| 96 | 0 | 0 | N/A | 28.2045\% | 26.6200\% | 0 | 0 | 0\% | 0\% |
| 97 | 0 | 0 | N/A | 29.8596\% | 28.3885\% | 0 | 0 | 0\% | 0\% |
| 98 | 0 | 0 | N/A | 31.6972\% | 30.7886\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 33.0026\% | 33.1888\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 18 | 463 |  |  |  | 16.7 | 14.1 | 108\% | 128\% |
| 100 or more | 0 | 0 | N/A | 37.1685\% | 40.3891\% | 0 | 0 | 0\% | 0\% |
| Total | 18 | 463 |  |  |  | 16.7 | 14.1 | 108\% | 128\% |


|  | TABLE 2B |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected (3) $\times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 1 | 0.000000 | 1.4837\% | 0.9226\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 1.5121\% | 1.0619\% | 0 | 0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 1.5409\% | 1.2013\% | 0 | 0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 1.5630\% | 1.3407\% | 0 | 0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 1.6061\% | 1.4800\% | 0 | 0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 1.6501\% | 1.6194\% | 0 | 0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 1.6950\% | 1.7588\% | 0 | 0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 1.7177\% | 1.8672\% | 0 | 0 | 0\% | 0\% |
| 49 | 0 | 2 | 0.000000 | 1.7429\% | 1.9756\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 3 | 0.000000 | 1.7433\% | 2.0840\% | 0.1 | 0.1 | 0\% | 0\% |
| 51 | 0 | 5 | 0.000000 | 1.7687\% | 2.1925\% | 0.1 | 0.1 | 0\% | 0\% |
| 52 | 0 | 5 | 0.000000 | 1.7686\% | 2.3009\% | 0.1 | 0.1 | 0\% | 0\% |
| 53 | 0 | 4 | 0.000000 | 1.7665\% | 2.3794\% | 0.1 | 0.1 | 0\% | 0\% |
| 54 | 0 | 3 | 0.000000 | 1.7997\% | 2.4580\% | 0.1 | 0.1 | 0\% | 0\% |
| 55 | 0 | 2 | 0.000000 | 1.8308\% | 2.5365\% | 0.0 | 0.1 | 0\% | 0\% |
| 56 | 0 | 3 | 0.000000 | 1.9016\% | 2.6151\% | 0.1 | 0.1 | 0\% | 0\% |
| 57 | 0 | 4 | 0.000000 | 1.9980\% | 2.6936\% | 0.1 | 0.1 | 0\% | 0\% |
| 58 | 1 | 5 | 0.200000 | 2.1697\% | 2.7573\% | 0.1 | 0.1 | 922\% | 725\% |
| 59 | 0 | 3 | 0.000000 | 2.2668\% | 2.8209\% | 0.1 | 0.1 | 0\% | 0\% |
| 60 | 0 | 3 | 0.000000 | 2.3670\% | 2.8846\% | 0.1 | 0.1 | 0\% | 0\% |
| 61 | 0 | 4 | 0.000000 | 2.4709\% | 2.9483\% | 0.1 | 0.1 | 0\% | 0\% |
| 62 | 0 | 2 | 0.000000 | 2.5239\% | 3.0119\% | 0.1 | 0.1 | 0\% | 0\% |
| 63 | 0 | 2 | 0.000000 | 2.5775\% | 3.0896\% | 0.1 | 0.1 | 0\% | 0\% |
| 64 | 1 | 2 | 0.500000 | 2.7492\% | 3.1674\% | 0.1 | 0.1 | 1819\% | 1579\% |
| 65 | 0 | 1 | 0.000000 | 2.8706\% | 3.2451\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 2 | 0.000000 | 3.0625\% | 3.3228\% | 0.1 | 0.1 | 0\% | 0\% |
| 67 | 0 | 3 | 0.000000 | 3.1997\% | 3.4005\% | 0.1 | 0.1 | 0\% | 0\% |
| 68 | 0 | 4 | 0.000000 | 3.3456\% | 3.5351\% | 0.1 | 0.1 | 0\% | 0\% |
| 69 | 0 | 3 | 0.000000 | 3.4266\% | 3.6698\% | 0.1 | 0.1 | 0\% | 0\% |
| 70 | 0 | 3 | 0.000000 | 3.5100\% | 3.8044\% | 0.1 | 0.1 | 0\% | 0\% |
| 71 | 0 | 2 | 0.000000 | 3.5716\% | 3.9390\% | 0.1 | 0.1 | 0\% | 0\% |
| 72 | 0 | 1 | 0.000000 | 3.6091\% | 4.0737\% | 0.0 | 0.0 | 0\% | 0\% |
| 73 | 0 | 1 | 0.000000 | 3.6726\% | 4.3220\% | 0.0 | 0.0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 3.8549\% | 4.5704\% | 0 | 0 | 0\% | 0\% |
| 75 | 0 | 0 | N/A | 4.1360\% | 4.8187\% | 0 | 0 | 0\% | 0\% |
| 76 | 0 | 0 | N/A | 4.3872\% | 5.0671\% | 0 | 0 | 0\% | 0\% |
| 77 | 0 | 0 | N/A | 4.5998\% | 5.3154\% | 0 | 0 | 0\% | 0\% |
| 78 | 0 | 0 | N/A | 4.9979\% | 5.7482\% | 0 | 0 | 0\% | 0\% |
| 79 | 0 | 0 | N/A | 5.4045\% | 6.1810\% | 0 | 0 | 0\% | 0\% |
| 80 | 0 | 0 | N/A | 5.9727\% | 6.6138\% | 0 | 0 | 0\% | 0\% |
| 81 | 0 | 0 | N/A | 6.6020\% | 7.0467\% | 0 | 0 | 0\% | 0\% |
| 82 | 0 | 0 | N/A | 7.2980\% | 7.4795\% | 0 | 0 | 0\% | 0\% |
| 83 | 0 | 0 | N/A | 8.0664\% | 8.1814\% | 0 | 0 | 0\% | 0\% |
| 84 | 0 | 0 | N/A | 8.9133\% | 8.8833\% | 0 | 0 | 0\% | 0\% |
| 85 | 0 | 0 | N/A | 9.7162\% | 9.5853\% | 0 | 0 | 0\% | 0\% |
| 86 | 0 | 0 | N/A | 10.3681\% | 10.2872\% | 0 | 0 | 0\% | 0\% |
| 87 | 0 | 0 | N/A | 11.2988\% | 10.9891\% | 0 | 0 | 0\% | 0\% |
| 88 | 0 | 0 | N/A | 12.2125\% | 12.0588\% | 0 | 0 | 0\% | 0\% |
| 89 | 0 | 0 | N/A | 13.6802\% | 13.1284\% | 0 | 0 | 0\% | 0\% |
| 90 | 0 | 0 | N/A | 15.3234\% | 14.1981\% | 0 | 0 | 0\% | 0\% |
| 91 | 0 | 0 | N/A | 17.2895\% | 15.2677\% | 0 | 0 | 0\% | 0\% |
| 92 | 0 | 0 | N/A | 18.8204\% | 16.3374\% | 0 | 0 | 0\% | 0\% |
| 93 | 0 | 0 | N/A | 20.0298\% | 17.8873\% | 0 | 0 | 0\% | 0\% |
| 94 | 0 | 0 | N/A | 21.1824\% | 19.4373\% | 0 | 0 | 0\% | 0\% |
| 95 | 0 | 0 | N/A | 22.6541\% | 20.9872\% | 0 | 0 | 0\% | 0\% |
| 96 | 0 | 0 | N/A | 23.3742\% | 22.5371\% | 0 | 0 | 0\% | 0\% |
| 97 | 0 | 0 | N/A | 23.4718\% | 24.0870\% | 0 | 0 | 0\% | 0\% |
| 98 | 0 | 0 | N/A | 23.4917\% | 26.2437\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 24.8039\% | 28.4003\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 2 | 73 |  |  |  | 1.8 | 2.1 | 114\% | 96\% |
| 100 or more | 0 | 0 | N/A | 25.4498\% | 34.8703\% | 0 | 0 | 0\% | 0\% |
| Total | 2 | 73 |  |  |  | 1.8 | 2.1 | 114\% | 96\% |


|  | TABLE 2C |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 1 | 0.000000 | 1.4837\% | 0.9226\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 2 | 0.000000 | 1.4841\% | 0.5537\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 2 | 0.000000 | 1.5246\% | 0.6796\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 3 | 0.000000 | 1.5660\% | 0.8055\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 4 | 0.000000 | 1.6079\% | 0.9315\% | 0.1 | 0.0 | 0\% | 0\% |
| 46 | 0 | 4 | 0.000000 | 1.6532\% | 1.0574\% | 0.1 | 0.0 | 0\% | 0\% |
| 47 | 0 | 6 | 0.000000 | 1.6979\% | 1.1833\% | 0.1 | 0.1 | 0\% | 0\% |
| 48 | 0 | 7 | 0.000000 | 1.7687\% | 1.2873\% | 0.1 | 0.1 | 0\% | 0\% |
| 49 | 0 | 11 | 0.000000 | 1.8224\% | 1.4975\% | 0.2 | 0.2 | 0\% | 0\% |
| 50 | 0 | 16 | 0.000000 | 1.8804\% | 1.6056\% | 0.3 | 0.3 | 0\% | 0\% |
| 51 | 0 | 17 | 0.000000 | 1.9507\% | 1.7737\% | 0.3 | 0.3 | 0\% | 0\% |
| 52 | 2 | 20 | 0.100000 | 2.0507\% | 1.8526\% | 0.4 | 0.4 | 488\% | 540\% |
| 53 | 0 | 14 | 0.000000 | 2.1381\% | 1.9596\% | 0.3 | 0.3 | 0\% | 0\% |
| 54 | 0 | 11 | 0.000000 | 2.2612\% | 2.0377\% | 0.2 | 0.2 | 0\% | 0\% |
| 55 | 0 | 15 | 0.000000 | 2.5048\% | 2.0443\% | 0.4 | 0.3 | 0\% | 0\% |
| 56 | 1 | 15 | 0.066667 | 2.5319\% | 2.1687\% | 0.4 | 0.3 | 263\% | 307\% |
| 57 | 0 | 19 | 0.000000 | 2.6087\% | 2.2610\% | 0.5 | 0.4 | 0\% | 0\% |
| 58 | 3 | 21 | 0.142857 | 2.6919\% | 2.3618\% | 0.6 | 0.5 | 531\% | 605\% |
| 59 | 1 | 20 | 0.050000 | 2.8190\% | 2.4044\% | 0.6 | 0.5 | 177\% | 208\% |
| 60 | 0 | 27 | 0.000000 | 2.9104\% | 2.4748\% | 0.8 | 0.7 | 0\% | 0\% |
| 61 | 0 | 32 | 0.000000 | 3.0520\% | 2.5702\% | 1.0 | 0.8 | 0\% | 0\% |
| 62 | 2 | 36 | 0.055556 | 3.2318\% | 2.6312\% | 1.2 | 0.9 | 172\% | 211\% |
| 63 | 1 | 32 | 0.031250 | 3.3922\% | 2.7602\% | 1.1 | 0.9 | 92\% | 113\% |
| 64 | 2 | 29 | 0.068966 | 3.5421\% | 2.8884\% | 1.0 | 0.8 | 195\% | 239\% |
| 65 | 1 | 21 | 0.047619 | 3.7224\% | 3.0090\% | 0.8 | 0.6 | 128\% | 158\% |
| 66 | 0 | 18 | 0.000000 | 3.7618\% | 3.1484\% | 0.7 | 0.6 | 0\% | 0\% |
| 67 | 1 | 19 | 0.052632 | 3.7961\% | 3.2788\% | 0.7 | 0.6 | 139\% | 161\% |
| 68 | 0 | 16 | 0.000000 | 3.8183\% | 3.4848\% | 0.6 | 0.6 | 0\% | 0\% |
| 69 | 0 | 14 | 0.000000 | 3.8841\% | 3.6778\% | 0.5 | 0.5 | 0\% | 0\% |
| 70 | 0 | 12 | 0.000000 | 3.9367\% | 3.8701\% | 0.5 | 0.5 | 0\% | 0\% |
| 71 | 1 | 11 | 0.090909 | 4.1532\% | 4.0740\% | 0.5 | 0.4 | 219\% | 223\% |
| 72 | 0 | 8 | 0.000000 | 4.4191\% | 4.2857\% | 0.4 | 0.3 | 0\% | 0\% |
| 73 | 0 | 8 | 0.000000 | 4.6681\% | 4.6259\% | 0.4 | 0.4 | 0\% | 0\% |
| 74 | 0 | 5 | 0.000000 | 5.1099\% | 5.0227\% | 0.3 | 0.3 | 0\% | 0\% |
| 75 | 0 | 5 | 0.000000 | 5.4793\% | 5.3761\% | 0.3 | 0.3 | 0\% | 0\% |
| 76 | 0 | 4 | 0.000000 | 5.9251\% | 5.7294\% | 0.2 | 0.2 | 0\% | 0\% |
| 77 | 1 | 2 | 0.500000 | 6.4623\% | 6.0828\% | 0.1 | 0.1 | 774\% | 822\% |
| 78 | 0 | 3 | 0.000000 | 7.0498\% | 6.6494\% | 0.2 | 0.2 | 0\% | 0\% |
| 79 | 0 | 3 | 0.000000 | 7.6912\% | 7.2161\% | 0.2 | 0.2 | 0\% | 0\% |
| 80 | 1 | 5 | 0.200000 | 8.3900\% | 7.7827\% | 0.4 | 0.4 | 238\% | 257\% |
| 81 | 2 | 4 | 0.500000 | 9.1500\% | 8.3493\% | 0.4 | 0.3 | 546\% | 599\% |
| 82 | 0 | 3 | 0.000000 | 9.9739\% | 8.9159\% | 0.3 | 0.3 | 0\% | 0\% |
| 83 | 1 | 3 | 0.333333 | 10.7832\% | 9.7808\% | 0.3 | 0.3 | 309\% | 341\% |
| 84 | 0 | 1 | 0.000000 | 11.7507\% | 10.6456\% | 0.1 | 0.1 | 0\% | 0\% |
| 85 | 0 | 2 | 0.000000 | 12.7010\% | 11.5105\% | 0.3 | 0.2 | 0\% | 0\% |
| 86 | 0 | 2 | 0.000000 | 13.4167\% | 12.3753\% | 0.3 | 0.2 | 0\% | 0\% |
| 87 | 0 | 2 | 0.000000 | 14.0240\% | 13.2402\% | 0.3 | 0.3 | 0\% | 0\% |
| 88 | 0 | 1 | 0.000000 | 14.7914\% | 14.5013\% | 0.1 | 0.1 | 0\% | 0\% |
| 89 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 90 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 91 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 92 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 93 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 94 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 95 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 96 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 97 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 98 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 20 | 536 |  |  |  | 18.5 | 16.2 | 108\% | 124\% |
| 100 or more | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| Total | 20 | 536 |  |  |  | 18.5 | 16.2 | 108\% | 124\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN

|  | TABLE 2A GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected $(7) /(3)$ | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 7 | 0.00000 | 0.015308 | 0.6976\% | 10.7154\% | 0.0 | 0\% | 0\% |
| 45-49 | 0 | 30 | 0.00000 | 0.017391 | 1.2196\% | 52.1736\% | 0.4 | 0\% | 0\% |
| 50-54 | 2 | 58 | 0.03448 | 0.021325 | 1.6747\% | 123.6871\% | 1.0 | 162\% | 206\% |
| 55-59 | 4 | 73 | 0.05479 | 0.027811 | 2.1630\% | 203.0174\% | 1.6 | 197\% | 253\% |
| 60-64 | 4 | 143 | 0.02797 | 0.032949 | 2.6356\% | 471.1714\% | 3.8 | 85\% | 106\% |
| 65-69 | 2 | 75 | 0.02667 | 0.038829 | 3.2555\% | 291.2211\% | 2.4 | 69\% | 82\% |
| 70-74 | 1 | 37 | 0.02703 | 0.044923 | 4.3237\% | 166.2169\% | 1.6 | 60\% | 63\% |
| 75-79 | 1 | 17 | 0.05882 | 0.063673 | 6.0918\% | 108.2445\% | 1.0 | 92\% | 97\% |
| 80-84 | 4 | 16 | 0.25000 | 0.095358 | 8.6904\% | 152.5720\% | 1.4 | 262\% | 288\% |
| 85-89 | 0 | 7 | 0.00000 | 0.135821 | 12.6791\% | 95.0748\% | 0.9 | 0\% | 0\% |
| 90-94 | 0 | 0 | N/A |  |  | 0.0000\% | 0 | 0\% | 0\% |
| 95-99 | 0 | 0 | N/A |  |  | 0.0000\% | 0 | 0\% | 0\% |
| 100+ | 0 | 0 | N/A |  |  | 0.0000\% | 0 | 0\% | 0\% |
| Total | 18 | 463 |  |  |  | 16.7 | 14.1 | 108\% | 128\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA MORTALITY EXPERIENCE OF DISABILITY RETIREES WOMEN

|  | TABLE 2B GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 1 | 0.000000 | 1.4837\% | 0.9226\% | 0.0 | 0.0 | 0\% | 0\% |
| 45-49 | 0 | 2 | 0.000000 | 1.7429\% | 1.9756\% | 0.0 | 0.0 | 0\% | 0\% |
| 50-54 | 0 | 20 | 0.000000 | 1.7691\% | 2.2805\% | 0.4 | 0.5 | 0\% | 0\% |
| 55-59 | 1 | 17 | 0.058824 | 2.0593\% | 2.7025\% | 0.4 | 0.5 | 286\% | 218\% |
| 60-64 | 1 | 13 | 0.076923 | 2.5143\% | 2.9988\% | 0.3 | 0.4 | 306\% | 257\% |
| 65-69 | 0 | 13 | 0.000000 | 3.2505\% | 3.4801\% | 0.4 | 0.5 | 0\% | 0\% |
| 70-74 | 0 | 7 | 0.000000 | 3.5650\% | 3.9553\% | 0.2 | 0.3 | 0\% | 0\% |
| 75-79 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 80-84 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 85-89 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 90-94 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 95-99 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 2 | 73 |  |  |  | 1.8 | 2.1 | 114\% | 96\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA MORTALITY EXPERIENCE OF DISABILITY RETIREES <br> MEN AND WOMEN

|  | TABLE 2C GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 8 | 0.000000 | 1.5249\% | 0.7257\% | 0.1 | 0.1 | 0\% | 0\% |
| 45-49 | 0 | 32 | 0.000000 | 1.7394\% | 1.2668\% | 0.6 | 0.4 | 0\% | 0\% |
| 50-54 | 2 | 78 | 0.025641 | 2.0393\% | 1.8300\% | 1.6 | 1.4 | 126\% | 140\% |
| 55-59 | 5 | 90 | 0.055556 | 2.6447\% | 2.2649\% | 2.4 | 2.0 | 210\% | 245\% |
| 60-64 | 5 | 156 | 0.032051 | 3.2299\% | 2.6659\% | 5.0 | 4.2 | 99\% | 120\% |
| 65-69 | 2 | 88 | 0.022727 | 3.7895\% | 3.2887\% | 3.3 | 2.9 | 60\% | 69\% |
| 70-74 | 1 | 44 | 0.022727 | 4.3448\% | 4.2651\% | 1.9 | 1.9 | 52\% | 53\% |
| 75-79 | 1 | 17 | 0.058824 | 6.3673\% | 6.0918\% | 1.1 | 1.0 | 92\% | 97\% |
| 80-84 | 4 | 16 | 0.250000 | 9.5358\% | 8.6904\% | 1.5 | 1.4 | 262\% | 288\% |
| 85-89 | 0 | 7 | 0.000000 | 13.5821\% | 12.6791\% | 1.0 | 0.9 | 0\% | 0\% |
| 90-94 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 95-99 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 20 | 536 |  |  |  | 18.5 | 16.2 | 108\% | 124\% |


| Age | TABLE 2A |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | $\begin{aligned} & \text { Expected } \\ & \text { (3) } \times(5) \\ & \hline \end{aligned}$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 6 | 0.000000 | 1.4841\% | 0.4643\% | 0.1 | 0.0 | 0\% | 0\% |
| 42 | 0 | 8 | 0.000000 | 1.5295\% | 0.6030\% | 0.1 | 0.0 | 0\% | 0\% |
| 43 | 0 | 11 | 0.000000 | 1.5760\% | 0.7413\% | 0.2 | 0.1 | 0\% | 0\% |
| 44 | 0 | 14 | 0.000000 | 1.6237\% | 0.8782\% | 0.2 | 0.1 | 0\% | 0\% |
| 45 | 0 | 16 | 0.000000 | 1.6723\% | 1.0132\% | 0.3 | 0.2 | 0\% | 0\% |
| 46 | 0 | 19 | 0.000000 | 1.7246\% | 1.1457\% | 0.3 | 0.2 | 0\% | 0\% |
| 47 | 0 | 22 | 0.000000 | 1.7766\% | 1.2757\% | 0.4 | 0.3 | 0\% | 0\% |
| 48 | 0 | 22 | 0.000000 | 1.8563\% | 1.3794\% | 0.4 | 0.3 | 0\% | 0\% |
| 49 | 0 | 28 | 0.000000 | 1.9372\% | 1.4804\% | 0.5 | 0.4 | 0\% | 0\% |
| 50 | 0 | 31 | 0.000000 | 2.0191\% | 1.5788\% | 0.6 | 0.5 | 0\% | 0\% |
| 51 | 1 | 36 | 0.027778 | 2.1466\% | 1.6744\% | 0.8 | 0.6 | 129\% | 166\% |
| 52 | 3 | 40 | 0.075000 | 2.2787\% | 1.7670\% | 0.9 | 0.7 | 329\% | 424\% |
| 53 | 1 | 38 | 0.026316 | 2.4295\% | 1.8420\% | 0.9 | 0.7 | 108\% | 143\% |
| 54 | 1 | 42 | 0.023810 | 2.5864\% | 1.9177\% | 1.1 | 0.8 | 92\% | 124\% |
| 55 | 2 | 52 | 0.038462 | 2.7631\% | 1.9960\% | 1.4 | 1.0 | 139\% | 193\% |
| 56 | 2 | 58 | 0.034483 | 2.8401\% | 2.0785\% | 1.6 | 1.2 | 121\% | 166\% |
| 57 | 2 | 59 | 0.033898 | 2.9177\% | 2.1668\% | 1.7 | 1.3 | 116\% | 156\% |
| 58 | 3 | 62 | 0.048387 | 2.9966\% | 2.2656\% | 1.9 | 1.4 | 161\% | 214\% |
| 59 | 1 | 58 | 0.017241 | 3.0609\% | 2.3705\% | 1.8 | 1.4 | 56\% | 73\% |
| 60 | 0 | 61 | 0.000000 | 3.1259\% | 2.4814\% | 1.9 | 1.5 | 0\% | 0\% |
| 61 | 0 | 56 | 0.000000 | 3.2804\% | 2.5964\% | 1.8 | 1.5 | 0\% | 0\% |
| 62 | 2 | 56 | 0.035714 | 3.4252\% | 2.7138\% | 1.9 | 1.5 | 104\% | 132\% |
| 63 | 1 | 51 | 0.019608 | 3.5954\% | 2.8702\% | 1.8 | 1.5 | 55\% | 68\% |
| 64 | 1 | 44 | 0.022727 | 3.7564\% | 3.0262\% | 1.7 | 1.3 | 61\% | 75\% |
| 65 | 1 | 36 | 0.027778 | 3.9277\% | 3.1809\% | 1.4 | 1.1 | 71\% | 87\% |
| 66 | 0 | 30 | 0.000000 | 4.0033\% | 3.3338\% | 1.2 | 1.0 | 0\% | 0\% |
| 67 | 1 | 30 | 0.033333 | 4.0644\% | 3.4857\% | 1.2 | 1.0 | 82\% | 96\% |
| 68 | 0 | 23 | 0.000000 | 4.1476\% | 3.7241\% | 1.0 | 0.9 | 0\% | 0\% |
| 69 | 1 | 22 | 0.045455 | 4.1821\% | 3.9627\% | 0.9 | 0.9 | 109\% | 115\% |
| 70 | 1 | 19 | 0.052632 | 4.2681\% | 4.2004\% | 0.8 | 0.8 | 123\% | 125\% |
| 71 | 2 | 18 | 0.111111 | 4.4810\% | 4.4379\% | 0.8 | 0.8 | 248\% | 250\% |
| 72 | 1 | 16 | 0.062500 | 4.7452\% | 4.6748\% | 0.8 | 0.7 | 132\% | 134\% |
| 73 | 0 | 14 | 0.000000 | 5.0334\% | 5.0643\% | 0.7 | 0.7 | 0\% | 0\% |
| 74 | 0 | 15 | 0.000000 | 5.3469\% | 5.4526\% | 0.8 | 0.8 | 0\% | 0\% |
| 75 | 0 | 14 | 0.000000 | 5.7161\% | 5.8386\% | 0.8 | 0.8 | 0\% | 0\% |
| 76 | 1 | 13 | 0.076923 | 6.1811\% | 6.2236\% | 0.8 | 0.8 | 124\% | 124\% |
| 77 | 2 | 10 | 0.200000 | 6.7210\% | 6.6054\% | 0.7 | 0.7 | 298\% | 303\% |
| 78 | 0 | 9 | 0.000000 | 7.3098\% | 7.2148\% | 0.7 | 0.6 | 0\% | 0\% |
| 79 | 1 | 9 | 0.111111 | 7.9507\% | 7.8215\% | 0.7 | 0.7 | 140\% | 142\% |
| 80 | 1 | 8 | 0.125000 | 8.6468\% | 8.4262\% | 0.7 | 0.7 | 145\% | 148\% |
| 81 | 2 | 7 | 0.285714 | 9.4016\% | 9.0276\% | 0.7 | 0.6 | 304\% | 316\% |
| 82 | 0 | 5 | 0.000000 | 10.2172\% | 9.6264\% | 0.5 | 0.5 | 0\% | 0\% |
| 83 | 1 | 5 | 0.200000 | 11.0462\% | 10.5450\% | 0.6 | 0.5 | 181\% | 190\% |
| 84 | 0 | 2 | 0.000000 | 12.0010\% | 11.4610\% | 0.2 | 0.2 | 0\% | 0\% |
| 85 | 0 | 2 | 0.000000 | 12.9715\% | 12.3743\% | 0.3 | 0.2 | 0\% | 0\% |
| 86 | 0 | 2 | 0.000000 | 13.7025\% | 13.2837\% | 0.3 | 0.3 | 0\% | 0\% |
| 87 | 0 | 2 | 0.000000 | 14.2795\% | 14.1888\% | 0.3 | 0.3 | 0\% | 0\% |
| 88 | 0 | 1 | 0.000000 | 15.0155\% | 15.5101\% | 0.2 | 0.2 | 0\% | 0\% |
| 89 | 0 | 0 | N/A | 15.7075\% | 16.8210\% | 0 | 0 | 0\% | 0\% |
| 90 | 0 | 0 | N/A | 16.5102\% | 18.1205\% | 0 | 0 | 0\% | 0\% |
| 91 | 0 | 0 | N/A | 18.3623\% | 19.4074\% | 0 | 0 | 0\% | 0\% |
| 92 | 0 | 0 | N/A | 20.5314\% | 20.6763\% | 0 | 0 | 0\% | 0\% |
| 93 | 0 | 0 | N/A | 22.5354\% | 22.4555\% | 0 | 0 | 0\% | 0\% |
| 94 | 0 | 0 | N/A | 24.4937\% | 24.2273\% | 0 | 0 | 0\% | 0\% |
| 95 | 0 | 0 | N/A | 26.5684\% | 25.9989\% | 0 | 0 | 0\% | 0\% |
| 96 | 0 | 0 | N/A | 28.3744\% | 27.7814\% | 0 | 0 | 0\% | 0\% |
| 97 | 0 | 0 | N/A | 30.0395\% | 29.5550\% | 0 | 0 | 0\% | 0\% |
| 98 | 0 | 0 | N/A | 31.7925\% | 31.9759\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 33.1018\% | 34.3885\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 35 | 1,202 |  |  |  | 41.3 | 34.5 | 85\% | 102\% |
| 100 or more | 0 | 0 | N/A | 37.1685\% | 41.8491\% | 0 | 0 | 0\% | 0\% |
| Total | 35 | 1,202 |  |  |  | 41.3 | 34.5 | 85\% | 102\% |


|  | TABLE 2B |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | $\begin{aligned} & \text { Expected } \\ & \text { (3) } \times \text { (5) } \end{aligned}$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 1 | 0.000000 | 1.5525\% | 0.9910\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 1.5823\% | 1.1369\% | 0 | 0 | 0\% | 0\% |
| 43 | 0 | 2 | 0.000000 | 1.6123\% | 1.2792\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 3 | 0.000000 | 1.6355\% | 1.4176\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 3 | 0.000000 | 1.6857\% | 1.5526\% | 0.1 | 0.0 | 0\% | 0\% |
| 46 | 0 | 4 | 0.000000 | 1.7372\% | 1.6837\% | 0.1 | 0.1 | 0\% | 0\% |
| 47 | 0 | 4 | 0.000000 | 1.7899\% | 1.8115\% | 0.1 | 0.1 | 0\% | 0\% |
| 48 | 0 | 5 | 0.000000 | 1.8139\% | 1.9058\% | 0.1 | 0.1 | 0\% | 0\% |
| 49 | 0 | 7 | 0.000000 | 1.8405\% | 2.0007\% | 0.1 | 0.1 | 0\% | 0\% |
| 50 | 0 | 8 | 0.000000 | 1.8353\% | 2.0987\% | 0.1 | 0.2 | 0\% | 0\% |
| 51 | 0 | 9 | 0.000000 | 1.8563\% | 2.2008\% | 0.2 | 0.2 | 0\% | 0\% |
| 52 | 0 | 11 | 0.000000 | 1.8450\% | 2.3092\% | 0.2 | 0.3 | 0\% | 0\% |
| 53 | 0 | 10 | 0.000000 | 1.8316\% | 2.3940\% | 0.2 | 0.2 | 0\% | 0\% |
| 54 | 0 | 8 | 0.000000 | 1.8548\% | 2.4855\% | 0.1 | 0.2 | 0\% | 0\% |
| 55 | 0 | 7 | 0.000000 | 1.8755\% | 2.5832\% | 0.1 | 0.2 | 0\% | 0\% |
| 56 | 0 | 7 | 0.000000 | 1.9362\% | 2.6856\% | 0.1 | 0.2 | 0\% | 0\% |
| 57 | 0 | 7 | 0.000000 | 2.0283\% | 2.7913\% | 0.1 | 0.2 | 0\% | 0\% |
| 58 | 1 | 6 | 0.166667 | 2.2025\% | 2.8828\% | 0.1 | 0.2 | 757\% | 578\% |
| 59 | 0 | 6 | 0.000000 | 2.3011\% | 2.9744\% | 0.1 | 0.2 | 0\% | 0\% |
| 60 | 0 | 7 | 0.000000 | 2.4029\% | 3.0636\% | 0.2 | 0.2 | 0\% | 0\% |
| 61 | 0 | 7 | 0.000000 | 2.5083\% | 3.1501\% | 0.2 | 0.2 | 0\% | 0\% |
| 62 | 0 | 5 | 0.000000 | 2.5622\% | 3.2323\% | 0.1 | 0.2 | 0\% | 0\% |
| 63 | 0 | 5 | 0.000000 | 2.6166\% | 3.3266\% | 0.1 | 0.2 | 0\% | 0\% |
| 64 | 1 | 6 | 0.166667 | 2.7909\% | 3.4169\% | 0.2 | 0.2 | 597\% | 488\% |
| 65 | 0 | 5 | 0.000000 | 2.9141\% | 3.5037\% | 0.1 | 0.2 | 0\% | 0\% |
| 66 | 0 | 5 | 0.000000 | 3.1089\% | 3.5883\% | 0.2 | 0.2 | 0\% | 0\% |
| 67 | 0 | 5 | 0.000000 | 3.2481\% | 3.6707\% | 0.2 | 0.2 | 0\% | 0\% |
| 68 | 0 | 5 | 0.000000 | 3.3962\% | 3.8133\% | 0.2 | 0.2 | 0\% | 0\% |
| 69 | 0 | 5 | 0.000000 | 3.4785\% | 3.9553\% | 0.2 | 0.2 | 0\% | 0\% |
| 70 | 0 | 4 | 0.000000 | 3.5632\% | 4.0962\% | 0.1 | 0.2 | 0\% | 0\% |
| 71 | 0 | 3 | 0.000000 | 3.6366\% | 4.2368\% | 0.1 | 0.1 | 0\% | 0\% |
| 72 | 0 | 2 | 0.000000 | 3.6748\% | 4.3767\% | 0.1 | 0.1 | 0\% | 0\% |
| 73 | 0 | 2 | 0.000000 | 3.7508\% | 4.6388\% | 0.1 | 0.1 | 0\% | 0\% |
| 74 | 1 | 1 | 1.000000 | 3.9370\% | 4.8993\% | 0.0 | 0.0 | 2540\% | 2041\% |
| 75 | 0 | 0 | N/A | 4.2369\% | 5.1602\% | 0 | 0 | 0\% | 0\% |
| 76 | 0 | 0 | N/A | 4.4942\% | 5.4218\% | 0 | 0 | 0\% | 0\% |
| 77 | 0 | 0 | N/A | 4.6978\% | 5.6846\% | 0 | 0 | 0\% | 0\% |
| 78 | 0 | 0 | N/A | 5.1043\% | 6.1456\% | 0 | 0 | 0\% | 0\% |
| 79 | 0 | 0 | N/A | 5.5196\% | 6.6103\% | 0 | 0 | 0\% | 0\% |
| 80 | 0 | 0 | N/A | 6.0999\% | 7.0761\% | 0 | 0 | 0\% | 0\% |
| 81 | 0 | 0 | N/A | 6.7426\% | 7.5453\% | 0 | 0 | 0\% | 0\% |
| 82 | 0 | 0 | N/A | 7.4535\% | 8.0153\% | 0 | 0 | 0\% | 0\% |
| 83 | 0 | 0 | N/A | 8.2382\% | 8.7774\% | 0 | 0 | 0\% | 0\% |
| 84 | 0 | 0 | N/A | 9.1031\% | 9.5393\% | 0 | 0 | 0\% | 0\% |
| 85 | 0 | 0 | N/A | 9.8932\% | 10.3015\% | 0 | 0 | 0\% | 0\% |
| 86 | 0 | 0 | N/A | 10.5252\% | 11.0604\% | 0 | 0 | 0\% | 0\% |
| 87 | 0 | 0 | N/A | 11.4355\% | 11.8114\% | 0 | 0 | 0\% | 0\% |
| 88 | 0 | 0 | N/A | 12.3603\% | 12.9505\% | 0 | 0 | 0\% | 0\% |
| 89 | 0 | 0 | N/A | 13.8041\% | 14.0834\% | 0 | 0 | 0\% | 0\% |
| 90 | 0 | 0 | N/A | 15.4621\% | 15.2059\% | 0 | 0 | 0\% | 0\% |
| 91 | 0 | 0 | N/A | 17.4460\% | 16.3164\% | 0 | 0 | 0\% | 0\% |
| 92 | 0 | 0 | N/A | 18.9908\% | 17.4115\% | 0 | 0 | 0\% | 0\% |
| 93 | 0 | 0 | N/A | 20.1504\% | 19.0011\% | 0 | 0 | 0\% | 0\% |
| 94 | 0 | 0 | N/A | 21.3100\% | 20.5761\% | 0 | 0 | 0\% | 0\% |
| 95 | 0 | 0 | N/A | 22.7906\% | 22.1400\% | 0 | 0 | 0\% | 0\% |
| 96 | 0 | 0 | N/A | 23.5150\% | 23.7098\% | 0 | 0 | 0\% | 0\% |
| 97 | 0 | 0 | N/A | 23.5424\% | 25.2658\% | 0 | 0 | 0\% | 0\% |
| 98 | 0 | 0 | N/A | 23.5623\% | 27.4526\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 24.8785\% | 29.6244\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 3 | 175 |  |  |  | 4.1 | 4.9 | 74\% | 61\% |
| 100 or more | 0 | 0 | N/A | 25.4498\% | 36.3732\% | 0 | 0 | 0\% | 0\% |
| Total | 3 | 175 |  |  |  | 4.1 | 4.9 | 74\% | 61\% |


|  | TABLE 2C |  |  | Assumed | bability | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 7 | 0.000000 | 1.4939\% | 0.5395\% | 0.1 | 0.0 | 0\% | 0\% |
| 42 | 0 | 8 | 0.000000 | 1.5295\% | 0.6030\% | 0.1 | 0.0 | 0\% | 0\% |
| 43 | 0 | 13 | 0.000000 | 1.5816\% | 0.8240\% | 0.2 | 0.1 | 0\% | 0\% |
| 44 | 0 | 17 | 0.000000 | 1.6258\% | 0.9734\% | 0.3 | 0.2 | 0\% | 0\% |
| 45 | 0 | 19 | 0.000000 | 1.6744\% | 1.0983\% | 0.3 | 0.2 | 0\% | 0\% |
| 46 | 0 | 23 | 0.000000 | 1.7268\% | 1.2392\% | 0.4 | 0.3 | 0\% | 0\% |
| 47 | 0 | 26 | 0.000000 | 1.7786\% | 1.3581\% | 0.5 | 0.4 | 0\% | 0\% |
| 48 | 0 | 27 | 0.000000 | 1.8484\% | 1.4769\% | 0.5 | 0.4 | 0\% | 0\% |
| 49 | 0 | 35 | 0.000000 | 1.9179\% | 1.5845\% | 0.7 | 0.6 | 0\% | 0\% |
| 50 | 0 | 39 | 0.000000 | 1.9814\% | 1.6854\% | 0.8 | 0.7 | 0\% | 0\% |
| 51 | 1 | 45 | 0.022222 | 2.0885\% | 1.7797\% | 0.9 | 0.8 | 106\% | 125\% |
| 52 | 3 | 51 | 0.058824 | 2.1852\% | 1.8840\% | 1.1 | 1.0 | 269\% | 312\% |
| 53 | 1 | 48 | 0.020833 | 2.3049\% | 1.9570\% | 1.1 | 0.9 | 90\% | 106\% |
| 54 | 1 | 50 | 0.020000 | 2.4693\% | 2.0085\% | 1.2 | 1.0 | 81\% | 100\% |
| 55 | 2 | 59 | 0.033898 | 2.6578\% | 2.0657\% | 1.6 | 1.2 | 128\% | 164\% |
| 56 | 2 | 65 | 0.030769 | 2.7428\% | 2.1439\% | 1.8 | 1.4 | 112\% | 144\% |
| 57 | 2 | 66 | 0.030303 | 2.8234\% | 2.2330\% | 1.9 | 1.5 | 107\% | 136\% |
| 58 | 4 | 68 | 0.058824 | 2.9265\% | 2.3200\% | 2.0 | 1.6 | 201\% | 254\% |
| 59 | 1 | 64 | 0.015625 | 2.9897\% | 2.4271\% | 1.9 | 1.6 | 52\% | 64\% |
| 60 | 0 | 68 | 0.000000 | 3.0515\% | 2.5413\% | 2.1 | 1.7 | 0\% | 0\% |
| 61 | 0 | 63 | 0.000000 | 3.1946\% | 2.6579\% | 2.0 | 1.7 | 0\% | 0\% |
| 62 | 2 | 61 | 0.032787 | 3.3545\% | 2.7563\% | 2.0 | 1.7 | 98\% | 119\% |
| 63 | 1 | 56 | 0.017857 | 3.5080\% | 2.9110\% | 2.0 | 1.6 | 51\% | 61\% |
| 64 | 2 | 50 | 0.040000 | 3.6405\% | 3.0731\% | 1.8 | 1.5 | 110\% | 130\% |
| 65 | , | 41 | 0.024390 | 3.8041\% | 3.2202\% | 1.6 | 1.3 | 64\% | 76\% |
| 66 | 0 | 35 | 0.000000 | 3.8755\% | 3.3702\% | 1.4 | 1.2 | 0\% | 0\% |
| 67 | 1 | 35 | 0.028571 | 3.9478\% | 3.5122\% | 1.4 | 1.2 | 72\% | 81\% |
| 68 | 0 | 28 | 0.000000 | 4.0134\% | 3.7400\% | 1.1 | 1.0 | 0\% | 0\% |
| 69 | 1 | 27 | 0.037037 | 4.0518\% | 3.9613\% | 1.1 | 1.1 | 91\% | 93\% |
| 70 | 1 | 23 | 0.043478 | 4.1455\% | 4.1823\% | 1.0 | 1.0 | 105\% | 104\% |
| 71 | 2 | 21 | 0.095238 | 4.3604\% | 4.4092\% | 0.9 | 0.9 | 218\% | 216\% |
| 72 | 1 | 18 | 0.055556 | 4.6263\% | 4.6417\% | 0.8 | 0.8 | 120\% | 120\% |
| 73 | 0 | 16 | 0.000000 | 4.8731\% | 5.0111\% | 0.8 | 0.8 | 0\% | 0\% |
| 74 | 1 | 16 | 0.062500 | 5.2588\% | 5.4180\% | 0.8 | 0.9 | 119\% | 115\% |
| 75 | 0 | 14 | 0.000000 | 5.7161\% | 5.8386\% | 0.8 | 0.8 | 0\% | 0\% |
| 76 | 1 | 13 | 0.076923 | 6.1811\% | 6.2236\% | 0.8 | 0.8 | 124\% | 124\% |
| 77 | 2 | 10 | 0.200000 | 6.7210\% | 6.6054\% | 0.7 | 0.7 | 298\% | 303\% |
| 78 | 0 | 9 | 0.000000 | 7.3098\% | 7.2148\% | 0.7 | 0.6 | 0\% | 0\% |
| 79 | 1 | 9 | 0.111111 | 7.9507\% | 7.8215\% | 0.7 | 0.7 | 140\% | 142\% |
| 80 | 1 | 8 | 0.125000 | 8.6468\% | 8.4262\% | 0.7 | 0.7 | 145\% | 148\% |
| 81 | 2 | 7 | 0.285714 | 9.4016\% | 9.0276\% | 0.7 | 0.6 | 304\% | 316\% |
| 82 | 0 | 5 | 0.000000 | 10.2172\% | 9.6264\% | 0.5 | 0.5 | 0\% | 0\% |
| 83 | 1 | 5 | 0.200000 | 11.0462\% | 10.5450\% | 0.6 | 0.5 | 181\% | 190\% |
| 84 | 0 | 2 | 0.000000 | 12.0010\% | 11.4610\% | 0.2 | 0.2 | 0\% | 0\% |
| 85 | 0 | 2 | 0.000000 | 12.9715\% | 12.3743\% | 0.3 | 0.2 | 0\% | 0\% |
| 86 | 0 | 2 | 0.000000 | 13.7025\% | 13.2837\% | 0.3 | 0.3 | 0\% | 0\% |
| 87 | 0 | 2 | 0.000000 | 14.2795\% | 14.1888\% | 0.3 | 0.3 | 0\% | 0\% |
| 88 | 0 | 1 | 0.000000 | 15.0155\% | 15.5101\% | 0.2 | 0.2 | 0\% | 0\% |
| 89 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 90 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 91 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 92 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 93 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 94 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 95 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 96 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 97 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 98 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 38 | 1,377 |  |  |  | 45.4 | 39.4 | 84\% | 97\% |
| 100 or more | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| Total | 38 | 1,377 |  |  |  | 45.4 | 39.4 | 84\% | 97\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN

| Age | TABLE 2A GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected $(7) /(3)$ | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 39 | 0.000000 | 1.5694\% | 0.7194\% | 0.6 | 0.3 | 0\% | 0\% |
| 45-49 | 0 | 107 | 0.000000 | 1.8102\% | 1.2882\% | 1.9 | 1.4 | 0\% | 0\% |
| 50-54 | 6 | 187 | 0.032086 | 2.3100\% | 1.7670\% | 4.3 | 3.3 | 139\% | 182\% |
| 55-59 | 10 | 289 | 0.034602 | 2.9200\% | 2.1804\% | 8.4 | 6.3 | 119\% | 159\% |
| 60-64 | 4 | 268 | 0.014925 | 3.4136\% | 2.7174\% | 9.1 | 7.3 | 44\% | 55\% |
| 65-69 | 3 | 141 | 0.021277 | 4.0484\% | 3.4889\% | 5.7 | 4.9 | 53\% | 61\% |
| 70-74 | 4 | 82 | 0.048780 | 4.7359\% | 4.7216\% | 3.9 | 3.9 | 103\% | 103\% |
| 75-79 | 4 | 55 | 0.072727 | 6.6352\% | 6.6187\% | 3.6 | 3.6 | 110\% | 110\% |
| 80-84 | 4 | 27 | 0.148148 | 9.8261\% | 9.4215\% | 2.7 | 2.5 | 151\% | 157\% |
| 85-89 | 0 | 7 | 0.000000 | 13.8461\% | 13.6005\% | 1.0 | 1.0 | 0\% | 0\% |
| 90-94 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 95-99 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 35 | 1,202 |  |  |  | 41.3 | 34.5 | 85\% | 102\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA MORTALITY EXPERIENCE OF DISABILITY RETIREES WOMEN

|  | TABLE 2B GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 6 | 0.000000 | 1.6139\% | 1.3004\% | 0.1 | 0.1 | 0\% | 0\% |
| 45-49 | 0 | 23 | 0.000000 | 1.7878\% | 1.8336\% | 0.4 | 0.4 | 0\% | 0\% |
| 50-54 | 0 | 46 | 0.000000 | 1.8443\% | 2.3005\% | 0.8 | 1.1 | 0\% | 0\% |
| 55-59 | 1 | 33 | 0.030303 | 2.0576\% | 2.7747\% | 0.7 | 0.9 | 147\% | 109\% |
| 60-64 | 1 | 30 | 0.033333 | 2.5673\% | 3.2264\% | 0.8 | 1.0 | 130\% | 103\% |
| 65-69 | 0 | 25 | 0.000000 | 3.2292\% | 3.7063\% | 0.8 | 0.9 | 0\% | 0\% |
| 70-74 | 1 | 12 | 0.083333 | 3.6626\% | 4.3355\% | 0.4 | 0.5 | 228\% | 192\% |
| 75-79 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 80-84 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 85-89 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 90-94 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 95-99 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 3 | 175 |  |  |  | 4.1 | 4.9 | 74\% | 61\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN AND WOMEN

| Age | TABLE 2C GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 45 | 0.000000 | 1.5754\% | 0.7969\% | 0.7 | 0.4 | 0\% | 0\% |
| 45-49 | 0 | 130 | 0.000000 | 1.8062\% | 1.3847\% | 2.3 | 1.8 | 0\% | 0\% |
| 50-54 | 6 | 233 | 0.025751 | 2.2181\% | 1.8724\% | 5.2 | 4.4 | 116\% | 138\% |
| 55-59 | 11 | 322 | 0.034161 | 2.8316\% | 2.2413\% | 9.1 | 7.2 | 121\% | 152\% |
| 60-64 | 5 | 298 | 0.016779 | 3.3284\% | 2.7687\% | 9.9 | 8.3 | 50\% | 61\% |
| 65-69 | 3 | 166 | 0.018072 | 3.9250\% | 3.5216\% | 6.5 | 5.8 | 46\% | 51\% |
| 70-74 | 5 | 94 | 0.053191 | 4.5989\% | 4.6723\% | 4.3 | 4.4 | 116\% | 114\% |
| 75-79 | 4 | 55 | 0.072727 | 6.6352\% | 6.6187\% | 3.6 | 3.6 | 110\% | 110\% |
| 80-84 | 4 | 27 | 0.148148 | 9.8261\% | 9.4215\% | 2.7 | 2.5 | 151\% | 157\% |
| 85-89 | 0 | 7 | 0.000000 | 13.8461\% | 13.6005\% | 1.0 | 1.0 | 0\% | 0\% |
| 90-94 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 95-99 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 38 | 1,377 |  |  |  | 45.4 | 39.4 | 84\% | 97\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN AND WOMEN

| Plan <br> Year <br> Ending <br> June 30, | TABLE 2D <br> Life Years Exposed | Actual <br> Deaths | Expected Deaths | 10-YEAR PERIOD ENDING 6/30/2013 <br> Mortality Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / <br> Expected | Actual $(3) /(2)$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2002 | 140 | 4 | 3.1 | 130\% | 2.8571\% | 2.1946\% |
| 2003 | 142 | 4 | 3.2 | 124\% | 2.8169\% | 2.2681\% |
| 2004 | 140 | 2 | 3.3 | 60\% | 1.4286\% | 2.3768\% |
| 2005 | 142 | 2 | 3.5 | 57\% | 1.4085\% | 2.4515\% |
| 2006 | 144 | 1 | 3.7 | 27\% | 0.6944\% | 2.5440\% |
| 2007 | 145 | 5 | 3.8 | 130\% | 3.4483\% | 2.6539\% |
| 2008 | 140 | 5 | 3.8 | 131\% | 3.5714\% | 2.7221\% |
| 2009 | 136 | 3 | 3.9 | 77\% | 2.2059\% | 2.8495\% |
| 2010 | 135 | 6 | 3.9 | 153\% | 4.4444\% | 2.9138\% |
| 2011 | 132 | 6 | 3.9 | 152\% | 4.5455\% | 2.9859\% |
| Total | 1,396 | 38 | 36.2 | 105\% | 2.7221\% | 2.5913\% |

[^12]NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA
WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS MEN

| Service | TABLE 3A |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Withdrawals | Total Exposed | Actual Rate$(2) /(3)$ | Assumed Probability |  | Expected Withdrawals |  | Actual/Expected |  |
|  |  |  |  | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 0 | 8 | 103 | 0.0777 | 4.00\% | 7.00\% | 4.1 | 7.2 | 194\% | 111\% |
| 1 | 14 | 220 | 0.0636 | 2.00\% | 3.50\% | 4.4 | 7.7 | 318\% | 182\% |
| 2 | 5 | 261 | 0.0192 | 1.00\% | 1.75\% | 2.6 | 4.6 | 192\% | 109\% |
| 3 | 7 | 342 | 0.0205 | 1.00\% | 1.25\% | 3.4 | 4.3 | 205\% | 164\% |
| 4 | 5 | 355 | 0.0141 | 1.00\% | 1.00\% | 3.6 | 3.6 | 141\% | 141\% |
| 5 | 5 | 392 | 0.0128 | 1.00\% | 1.00\% | 3.9 | 3.9 | 128\% | 128\% |
| 6 | 7 | 375 | 0.0187 | 1.00\% | 1.00\% | 3.8 | 3.8 | 187\% | 187\% |
| 7 | 3 | 374 | 0.0080 | 1.00\% | 1.00\% | 3.7 | 3.7 | 80\% | 80\% |
| 8 | 3 | 299 | 0.0100 | 1.00\% | 1.00\% | 3.0 | 3.0 | 100\% | 100\% |
| 9 | 4 | 223 | 0.0179 | 1.00\% | 1.00\% | 2.2 | 2.2 | 179\% | 179\% |
| 10 | 0 | 160 | 0.0000 | 1.00\% | 1.00\% | 1.6 | 1.6 | 0\% | 0\% |
| 11 | 0 | 74 | 0.0000 | 1.00\% | 1.00\% | 0.7 | 0.7 | 0\% | 0\% |
| 12 | 1 | 64 | 0.0156 | 1.00\% | 1.00\% | 0.6 | 0.6 | 156\% | 156\% |
| 13 | 0 | 67 | 0.0000 | 1.00\% | 1.00\% | 0.7 | 0.7 | 0\% | 0\% |
| 14 | 0 | 52 | 0.0000 | 1.00\% | 1.00\% | 0.5 | 0.5 | 0\% | 0\% |
| 15 | 0 | 66 | 0.0000 | 1.00\% | 1.00\% | 0.7 | 0.7 | 0\% | 0\% |
| 16 | 1 | 77 | 0.0130 | 1.00\% | 1.00\% | 0.8 | 0.8 | 130\% | 130\% |
| 17 | 1 | 123 | 0.0081 | 1.00\% | 1.00\% | 1.2 | 1.2 | 81\% | 81\% |
| 18 | 1 | 141 | 0.0071 | 1.00\% | 1.00\% | 1.4 | 1.4 | 71\% | 71\% |
| 19 | 2 | 117 | 0.0171 | 1.00\% | 1.00\% | 1.2 | 1.2 | 171\% | 171\% |
| 20 | 4 | 103 | 0.0388 | 1.00\% | 1.00\% | 1.0 | 1.0 | 388\% | 388\% |
| 21 | 1 | 63 | 0.0159 | 1.00\% | 1.00\% | 0.6 | 0.6 | 159\% | 159\% |
| 22 | 0 | 52 | 0.0000 | 1.00\% | 1.00\% | 0.5 | 0.5 | 0\% | 0\% |
| 23 | 0 | 49 | 0.0000 | 1.00\% | 1.00\% | 0.5 | 0.5 | 0\% | 0\% |
| 24 | 1 | 42 | 0.0238 | 1.00\% | 1.00\% | 0.4 | 0.4 | 238\% | 238\% |
| 25 | 1 | 53 | 0.0189 | 1.00\% | 1.00\% | 0.5 | 0.5 | 189\% | 189\% |
| 26 | 0 | 40 | 0.0000 | 1.00\% | 1.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 27 | 0 | 33 | 0.0000 | 1.00\% | 1.00\% | 0.3 | 0.3 | 0\% | 0\% |
| 28 | 0 | 24 | 0.0000 | 1.00\% | 1.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 29 | 0 | 8 | 0.0000 | 1.00\% | 1.00\% | 0.1 | 0.1 | 0\% | 0\% |
| 30 | 0 | 6 | 0.0000 | 1.00\% | 1.00\% | 0.1 | 0.1 | 0\% | 0\% |
| Subtotal | 74 | 4,358 | 0.0170 |  |  | 48.9 | 58.1 | 151\% | 127\% |
| 31 or more | 0 | 3 | 0.0000 | 1.00\% | 1.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 74 | 4,361 | 0.0170 |  |  | 48.9 | 58.1 | 151\% | 127\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA
WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS WOMEN

| Service | TABLE 3B |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Withdrawals | Total Exposed | Actual Rate <br> (2) / (3) | Assumed Probability |  | Expected Withdrawals |  | Actual/Expected |  |
|  |  |  |  | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 0 | 2 | 18 | 0.1111 | 4.00\% | 7.00\% | 0.7 | 1.3 | 278\% | 159\% |
| 1 | 1 | 43 | 0.0233 | 2.00\% | 3.50\% | 0.9 | 1.5 | 116\% | 66\% |
| 2 | 7 | 53 | 0.1321 | 1.00\% | 1.75\% | 0.5 | 0.9 | 1321\% | 755\% |
| 3 | 2 | 64 | 0.0313 | 1.00\% | 1.25\% | 0.6 | 0.8 | 313\% | 250\% |
| 4 | 3 | 73 | 0.0411 | 1.00\% | 1.00\% | 0.7 | 0.7 | 411\% | 411\% |
| 5 | 5 | 120 | 0.0417 | 1.00\% | 1.00\% | 1.2 | 1.2 | 417\% | 417\% |
| 6 | 2 | 127 | 0.0157 | 1.00\% | 1.00\% | 1.3 | 1.3 | 157\% | 157\% |
| 7 | 3 | 140 | 0.0214 | 1.00\% | 1.00\% | 1.4 | 1.4 | 214\% | 214\% |
| 8 | 8 | 120 | 0.0667 | 1.00\% | 1.00\% | 1.2 | 1.2 | 667\% | 667\% |
| 9 | 2 | 80 | 0.0250 | 1.00\% | 1.00\% | 0.8 | 0.8 | 250\% | 250\% |
| 10 | 2 | 56 | 0.0357 | 1.00\% | 1.00\% | 0.6 | 0.6 | 357\% | 357\% |
| 11 | 2 | 29 | 0.0690 | 1.00\% | 1.00\% | 0.3 | 0.3 | 690\% | 690\% |
| 12 | 0 | 20 | 0.0000 | 1.00\% | 1.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 13 | 1 | 20 | 0.0500 | 1.00\% | 1.00\% | 0.2 | 0.2 | 500\% | 500\% |
| 14 | 1 | 20 | 0.0500 | 1.00\% | 1.00\% | 0.2 | 0.2 | 500\% | 500\% |
| 15 | 2 | 25 | 0.0800 | 1.00\% | 1.00\% | 0.3 | 0.3 | 800\% | 800\% |
| 16 | 0 | 30 | 0.0000 | 1.00\% | 1.00\% | 0.3 | 0.3 | 0\% | 0\% |
| 17 | 3 | 35 | 0.0857 | 1.00\% | 1.00\% | 0.4 | 0.4 | 857\% | 857\% |
| 18 | 0 | 33 | 0.0000 | 1.00\% | 1.00\% | 0.3 | 0.3 | 0\% | 0\% |
| 19 | 2 | 21 | 0.0952 | 1.00\% | 1.00\% | 0.2 | 0.2 | 952\% | 952\% |
| 20 | 0 | 15 | 0.0000 | 1.00\% | 1.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 21 | 1 | 17 | 0.0588 | 1.00\% | 1.00\% | 0.2 | 0.2 | 588\% | 588\% |
| 22 | 0 | 17 | 0.0000 | 1.00\% | 1.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 23 | 1 | 18 | 0.0556 | 1.00\% | 1.00\% | 0.2 | 0.2 | 556\% | 556\% |
| 24 | 1 | 13 | 0.0769 | 1.00\% | 1.00\% | 0.1 | 0.1 | 769\% | 769\% |
| 25 | 1 | 12 | 0.0833 | 1.00\% | 1.00\% | 0.1 | 0.1 | 833\% | 833\% |
| 26 | 0 | 4 | 0.0000 | 1.00\% | 1.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 2 | 0.0000 | 1.00\% | 1.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 28 | 0 | 4 | 0.0000 | 1.00\% | 1.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 29 | 0 | 2 | 0.0000 | 1.00\% | 1.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 30 | 0 | 1 | 0.0000 | 1.00\% | 1.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 52 | 1,232 | 0.0422 |  |  | 13.3 | 15.0 | 391\% | 346\% |
| 31 or more | 0 | 2 | 0.0000 | 1.00\% | 1.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 52 | 1,234 | 0.0421 |  |  | 13.3 | 15.1 | 391\% | 345\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA
WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS
MEN AND WOMEN


NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA
WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS MEN

| Service | TABLE 3A |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Withdrawals | Total Exposed | Actual Rate$(2) /(3)$ | Assumed Probability |  | Expected Withdrawals |  | Actual/Expected |  |
|  |  |  |  | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 0 | 37 | 347 | 0.1066 | 4.00\% | 7.00\% | 13.9 | 24.3 | 267\% | 152\% |
| 1 | 30 | 681 | 0.0441 | 2.00\% | 3.50\% | 13.6 | 23.8 | 220\% | 126\% |
| 2 | 11 | 698 | 0.0158 | 1.00\% | 1.75\% | 7.0 | 12.2 | 158\% | 90\% |
| 3 | 16 | 775 | 0.0206 | 1.00\% | 1.25\% | 7.8 | 9.7 | 206\% | 165\% |
| 4 | 8 | 685 | 0.0117 | 1.00\% | 1.00\% | 6.9 | 6.9 | 117\% | 117\% |
| 5 | 11 | 646 | 0.0170 | 1.00\% | 1.00\% | 6.5 | 6.5 | 170\% | 170\% |
| 6 | 9 | 566 | 0.0159 | 1.00\% | 1.00\% | 5.7 | 5.7 | 159\% | 159\% |
| 7 | 4 | 462 | 0.0087 | 1.00\% | 1.00\% | 4.6 | 4.6 | 87\% | 87\% |
| 8 | 4 | 378 | 0.0106 | 1.00\% | 1.00\% | 3.8 | 3.8 | 106\% | 106\% |
| 9 | 7 | 307 | 0.0228 | 1.00\% | 1.00\% | 3.1 | 3.1 | 228\% | 228\% |
| 10 | 2 | 222 | 0.0090 | 1.00\% | 1.00\% | 2.2 | 2.2 | 90\% | 90\% |
| 11 | 1 | 158 | 0.0063 | 1.00\% | 1.00\% | 1.6 | 1.6 | 63\% | 63\% |
| 12 | 3 | 152 | 0.0197 | 1.00\% | 1.00\% | 1.5 | 1.5 | 197\% | 197\% |
| 13 | 2 | 202 | 0.0099 | 1.00\% | 1.00\% | 2.0 | 2.0 | 99\% | 99\% |
| 14 | 2 | 220 | 0.0091 | 1.00\% | 1.00\% | 2.2 | 2.2 | 91\% | 91\% |
| 15 | 1 | 234 | 0.0043 | 1.00\% | 1.00\% | 2.3 | 2.3 | 43\% | 43\% |
| 16 | 2 | 241 | 0.0083 | 1.00\% | 1.00\% | 2.4 | 2.4 | 83\% | 83\% |
| 17 | 2 | 241 | 0.0083 | 1.00\% | 1.00\% | 2.4 | 2.4 | 83\% | 83\% |
| 18 | 1 | 256 | 0.0039 | 1.00\% | 1.00\% | 2.6 | 2.6 | 39\% | 39\% |
| 19 | 4 | 205 | 0.0195 | 1.00\% | 1.00\% | 2.1 | 2.1 | 195\% | 195\% |
| 20 | 5 | 180 | 0.0278 | 1.00\% | 1.00\% | 1.8 | 1.8 | 278\% | 278\% |
| 21 | 1 | 153 | 0.0065 | 1.00\% | 1.00\% | 1.5 | 1.5 | 65\% | 65\% |
| 22 | 0 | 124 | 0.0000 | 1.00\% | 1.00\% | 1.2 | 1.2 | 0\% | 0\% |
| 23 | 1 | 113 | 0.0088 | 1.00\% | 1.00\% | 1.1 | 1.1 | 88\% | 88\% |
| 24 | 1 | 100 | 0.0100 | 1.00\% | 1.00\% | 1.0 | 1.0 | 100\% | 100\% |
| 25 | 1 | 75 | 0.0133 | 1.00\% | 1.00\% | 0.8 | 0.8 | 133\% | 133\% |
| 26 | 0 | 65 | 0.0000 | 1.00\% | 1.00\% | 0.7 | 0.7 | 0\% | 0\% |
| 27 | 0 | 44 | 0.0000 | 1.00\% | 1.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 28 | 0 | 32 | 0.0000 | 1.00\% | 1.00\% | 0.3 | 0.3 | 0\% | 0\% |
| 29 | 0 | 13 | 0.0000 | 1.00\% | 1.00\% | 0.1 | 0.1 | 0\% | 0\% |
| 30 | 0 | 17 | 0.0000 | 1.00\% | 1.00\% | 0.2 | 0.2 | 0\% | 0\% |
| Subtotal | 166 | 8,592 | 0.0193 |  |  | 103.1 | 130.9 | 161\% | 127\% |
| 31 or more | 0 | 24 | 0.0000 | 1.00\% | 1.00\% | 0.2 | 0.2 | 0\% | 0\% |
| Total | 166 | 8,616 | 0.0193 |  |  | 103.4 | 131.2 | 161\% | 127\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA
WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS WOMEN

| Service | TABLE 3B |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Withdrawals | Total Exposed | Actual Rate <br> (2) / (3) | Assumed Probability |  | Expected Withdrawals |  | Actual/Expected |  |
|  |  |  |  | Expected | Proposed | $\begin{aligned} & \text { Expected } \\ & \text { (3) x (5) } \\ & \hline \end{aligned}$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 0 | 8 | 65 | 0.1231 | 4.00\% | 7.00\% | 2.6 | 4.6 | 308\% | 176\% |
| 1 | 9 | 195 | 0.0462 | 2.00\% | 3.50\% | 3.9 | 6.8 | 231\% | 132\% |
| 2 | 14 | 209 | 0.0670 | 1.00\% | 1.75\% | 2.1 | 3.7 | 670\% | 383\% |
| 3 | 5 | 239 | 0.0209 | 1.00\% | 1.25\% | 2.4 | 3.0 | 209\% | 167\% |
| 4 | 6 | 223 | 0.0269 | 1.00\% | 1.00\% | 2.2 | 2.2 | 269\% | 269\% |
| 5 | 9 | 218 | 0.0413 | 1.00\% | 1.00\% | 2.2 | 2.2 | 413\% | 413\% |
| 6 | 3 | 197 | 0.0152 | 1.00\% | 1.00\% | 2.0 | 2.0 | 152\% | 152\% |
| 7 | 3 | 175 | 0.0171 | 1.00\% | 1.00\% | 1.8 | 1.8 | 171\% | 171\% |
| 8 | 9 | 147 | 0.0612 | 1.00\% | 1.00\% | 1.5 | 1.5 | 612\% | 612\% |
| 9 | 3 | 102 | 0.0294 | 1.00\% | 1.00\% | 1.0 | 1.0 | 294\% | 294\% |
| 10 | 2 | 79 | 0.0253 | 1.00\% | 1.00\% | 0.8 | 0.8 | 253\% | 253\% |
| 11 | 2 | 61 | 0.0328 | 1.00\% | 1.00\% | 0.6 | 0.6 | 328\% | 328\% |
| 12 | 0 | 53 | 0.0000 | 1.00\% | 1.00\% | 0.5 | 0.5 | 0\% | 0\% |
| 13 | , | 62 | 0.0161 | 1.00\% | 1.00\% | 0.6 | 0.6 | 161\% | 161\% |
| 14 | 1 | 61 | 0.0164 | 1.00\% | 1.00\% | 0.6 | 0.6 | 164\% | 164\% |
| 15 | 3 | 63 | 0.0476 | 1.00\% | 1.00\% | 0.6 | 0.6 | 476\% | 476\% |
| 16 | 0 | 61 | 0.0000 | 1.00\% | 1.00\% | 0.6 | 0.6 | 0\% | 0\% |
| 17 | 3 | 62 | 0.0484 | 1.00\% | 1.00\% | 0.6 | 0.6 | 484\% | 484\% |
| 18 | 0 | 62 | 0.0000 | 1.00\% | 1.00\% | 0.6 | 0.6 | 0\% | 0\% |
| 19 | 2 | 44 | 0.0455 | 1.00\% | 1.00\% | 0.4 | 0.4 | 455\% | 455\% |
| 20 | 0 | 39 | 0.0000 | 1.00\% | 1.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 21 | 2 | 32 | 0.0625 | 1.00\% | 1.00\% | 0.3 | 0.3 | 625\% | 625\% |
| 22 | 0 | 25 | 0.0000 | 1.00\% | 1.00\% | 0.3 | 0.3 | 0\% | 0\% |
| 23 | 1 | 25 | 0.0400 | 1.00\% | 1.00\% | 0.3 | 0.3 | 400\% | 400\% |
| 24 | 1 | 23 | 0.0435 | 1.00\% | 1.00\% | 0.2 | 0.2 | 435\% | 435\% |
| 25 | 1 | 20 | 0.0500 | 1.00\% | 1.00\% | 0.2 | 0.2 | 500\% | 500\% |
| 26 | 1 | 13 | 0.0769 | 1.00\% | 1.00\% | 0.1 | 0.1 | 769\% | 769\% |
| 27 | 0 | 5 | 0.0000 | 1.00\% | 1.00\% | 0.1 | 0.1 | 0\% | 0\% |
| 28 | 0 | 4 | 0.0000 | 1.00\% | 1.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 29 | 0 | 2 | 0.0000 | 1.00\% | 1.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 30 | 0 | 2 | 0.0000 | 1.00\% | 1.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 89 | 2,568 | 0.0347 |  |  | 29.6 | 36.6 | 301\% | 243\% |
| 31 or more | 0 | 2 | 0.0000 | 1.00\% | 1.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 89 | 2,570 | 0.0346 |  |  | 29.6 | 36.6 | 301\% | 243\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA
WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS
MEN AND WOMEN


NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA
WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS
MEN AND WOMEN

| Plan Year | TABLE 3D |  |  | 10-YEAR PER | Withdrawal Rate |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending June 30, | Life Years Exposed | Actual Withdrawals | Expected Withdrawals | Actual / Expected | Actual $(3) /(2)$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 1,325 | 36 | 20.6 | 175\% | 2.72\% | 1.55\% |
| 2005 | 1,405 | 37 | 22.5 | 165\% | 2.63\% | 1.60\% |
| 2006 | 1,428 | 29 | 21.1 | 138\% | 2.03\% | 1.47\% |
| 2007 | 1,434 | 27 | 19.9 | 136\% | 1.88\% | 1.39\% |
| 2008 | 1,413 | 36 | 19.3 | 187\% | 2.55\% | 1.37\% |
| 2009 | 1,431 | 19 | 20.3 | 94\% | 1.33\% | 1.42\% |
| 2010 | 1,391 | 25 | 18.9 | 132\% | 1.80\% | 1.36\% |
| 2011 | 1,359 | 46 | 17.5 | 264\% | 3.38\% | 1.28\% |
| 2012 | 1,291 | 7 | 15.9 | 44\% | 0.54\% | 1.23\% |
| 2013 | 1,242 | 50 | 15.1 | 331\% | 4.03\% | 1.22\% |
| Total | 13,719 | 312 | 190.9 | 163\% | 2.27\% | 1.39\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY TOTAL - MEN AND WOMEN

|  | TABLE 4A |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements <br> Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } / \text { (3) } \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $\text { (3) } \times(5)$ | Proposed $(3) \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 19 | 36 | 0.5278 | 35.56\% | 35.56\% | 12.8 | 12.8 | 148\% | 148\% |
| 51 | 6 | 9 | 0.6667 | 37.78\% | 37.78\% | 3.4 | 3.4 | 176\% | 176\% |
| 52 | 7 | 8 | 0.8750 | 35.00\% | 35.00\% | 2.8 | 2.8 | 250\% | 250\% |
| 53 | 4 | 5 | 0.8000 | 36.00\% | 36.00\% | 1.8 | 1.8 | 222\% | 222\% |
| 54 | 1 | 2 | 0.5000 | 40.00\% | 40.00\% | 0.8 | 0.8 | 125\% | 125\% |
| 55 | 0 | 3 | 0.0000 | 40.00\% | 40.00\% | 1.2 | 1.2 | 0\% | 0\% |
| 56 | 2 | 3 | 0.6667 | 40.00\% | 40.00\% | 1.2 | 1.2 | 167\% | 167\% |
| 57 | 1 | 23 | 0.0435 | 20.87\% | 20.87\% | 4.8 | 4.8 | 21\% | 21\% |
| 58 | 0 | 5 | 0.0000 | 20.00\% | 20.00\% | 1.0 | 1.0 | 0\% | 0\% |
| 59 | 0 | 2 | 0.0000 | 20.00\% | 20.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 60 | 1 | 5 | 0.2000 | 36.00\% | 36.00\% | 1.8 | 1.8 | 56\% | 56\% |
| 61 | 1 | 3 | 0.3333 | 26.67\% | 26.67\% | 0.8 | 0.8 | 125\% | 125\% |
| 62 | 12 | 61 | 0.1967 | 30.98\% | 30.98\% | 18.9 | 18.9 | 63\% | 63\% |
| 63 | 9 | 10 | 0.9000 | 22.00\% | 22.00\% | 2.2 | 2.2 | 409\% | 409\% |
| 64 | 0 | 2 | 0.0000 | 20.00\% | 20.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 63 | 177 |  |  |  | 54.3 | 54.3 | 116\% | 116\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 63 | 177 |  |  |  | 54.3 | 54.3 | 116\% | 116\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 4B |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013$\qquad$ Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | Proposed $(3) \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 15 | 28 | 0.5357 | 40.00\% | 40.00\% | 11.2 | 11.2 | 134\% | 134\% |
| 51 | 5 | 8 | 0.6250 | 40.00\% | 40.00\% | 3.2 | 3.2 | 156\% | 156\% |
| 52 | 5 | 6 | 0.8333 | 40.00\% | 40.00\% | 2.4 | 2.4 | 208\% | 208\% |
| 53 | 3 | 4 | 0.7500 | 40.00\% | 40.00\% | 1.6 | 1.6 | 188\% | 188\% |
| 54 | 1 | 2 | 0.5000 | 40.00\% | 40.00\% | 0.8 | 0.8 | 125\% | 125\% |
| 55 | 0 | 3 | 0.0000 | 40.00\% | 40.00\% | 1.2 | 1.2 | 0\% | 0\% |
| 56 | 2 | 3 | 0.6667 | 40.00\% | 40.00\% | 1.2 | 1.2 | 167\% | 167\% |
| 57 | 1 | 1 | 1.0000 | 40.00\% | 40.00\% | 0.4 | 0.4 | 250\% | 250\% |
| 58 | 0 | 0 | N/A | 40.00\% | 40.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 59 | 0 | 0 | N/A | 40.00\% | 40.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 60 | 1 | 4 | 0.2500 | 40.00\% | 40.00\% | 1.6 | 1.6 | 63\% | 63\% |
| 61 | 1 | 1 | 1.0000 | 40.00\% | 40.00\% | 0.4 | 0.4 | 250\% | 250\% |
| 62 | 2 | 2 | 1.0000 | 60.00\% | 60.00\% | 1.2 | 1.2 | 167\% | 167\% |
| 63 | 1 | 1 | 1.0000 | 40.00\% | 40.00\% | 0.4 | 0.4 | 250\% | 250\% |
| 64 | 0 | 0 | N/A | 40.00\% | 40.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 60.00\% | 60.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 40.00\% | 40.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 40.00\% | 40.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 40.00\% | 40.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 40.00\% | 40.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 37 | 63 |  |  |  | 25.6 | 25.6 | 145\% | 145\% |
| Other | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 37 | 63 |  |  |  | 25.6 | 25.6 | 145\% | 145\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY MEN AND WOMEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 4C |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } / \text { (3) } \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $\text { (3) } \times(5)$ | Proposed $(3) \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 4 | 8 | 0.5000 | 20.00\% | 20.00\% | 1.6 | 1.6 | 250\% | 250\% |
| 51 | 1 | 1 | 1.0000 | 20.00\% | 20.00\% | 0.2 | 0.2 | 500\% | 500\% |
| 52 | 2 | 2 | 1.0000 | 20.00\% | 20.00\% | 0.4 | 0.4 | 500\% | 500\% |
| 53 | 1 | 1 | 1.0000 | 20.00\% | 20.00\% | 0.2 | 0.2 | 500\% | 500\% |
| 54 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 56 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 57 | 0 | 22 | 0.0000 | 20.00\% | 20.00\% | 4.4 | 4.4 | 0\% | 0\% |
| 58 | 0 | 5 | 0.0000 | 20.00\% | 20.00\% | 1.0 | 1.0 | 0\% | 0\% |
| 59 | 0 | 2 | 0.0000 | 20.00\% | 20.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 60 | 0 | 1 | 0.0000 | 20.00\% | 20.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 61 | 0 | 2 | 0.0000 | 20.00\% | 20.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 62 | 10 | 59 | 0.1695 | 30.00\% | 30.00\% | 17.7 | 17.7 | 56\% | 56\% |
| 63 | 8 | 9 | 0.8889 | 20.00\% | 20.00\% | 1.8 | 1.8 | 444\% | 444\% |
| 64 | 0 | 2 | 0.0000 | 20.00\% | 20.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 30.00\% | 30.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 26 | 114 |  |  |  | 28.7 | 28.7 | 91\% | 91\% |
| Other | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 26 | 114 |  |  |  | 28.7 | 28.7 | 91\% | 91\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY TOTAL - MEN AND WOMEN

|  | TABLE 4A |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ (3) \times(6) \\ \hline \end{gathered}$ | Expected $(2) /(7)$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 34 | 103 | 0.3301 | 36.70\% | 36.70\% | 37.8 | 37.8 | 90\% | 90\% |
| 51 | 6 | 13 | 0.4615 | 38.46\% | 38.46\% | 5.0 | 5.0 | 120\% | 120\% |
| 52 | 11 | 20 | 0.5500 | 38.00\% | 38.00\% | 7.6 | 7.6 | 145\% | 145\% |
| 53 | 4 | 12 | 0.3333 | 36.67\% | 36.67\% | 4.4 | 4.4 | 91\% | 91\% |
| 54 | 1 | 9 | 0.1111 | 40.00\% | 40.00\% | 3.6 | 3.6 | 28\% | 28\% |
| 55 | 2 | 22 | 0.0909 | 29.09\% | 29.09\% | 6.4 | 6.4 | 31\% | 31\% |
| 56 | 3 | 9 | 0.3333 | 37.78\% | 37.78\% | 3.4 | 3.4 | 88\% | 88\% |
| 57 | 2 | 41 | 0.0488 | 22.93\% | 22.93\% | 9.4 | 9.4 | 21\% | 21\% |
| 58 | 0 | 9 | 0.0000 | 24.44\% | 24.44\% | 2.2 | 2.2 | 0\% | 0\% |
| 59 | 0 | 8 | 0.0000 | 25.00\% | 25.00\% | 2.0 | 2.0 | 0\% | 0\% |
| 60 | 1 | 8 | 0.1250 | 35.00\% | 35.00\% | 2.8 | 2.8 | 36\% | 36\% |
| 61 | 2 | 6 | 0.3333 | 23.33\% | 23.33\% | 1.4 | 1.4 | 143\% | 143\% |
| 62 | 17 | 111 | 0.1532 | 30.54\% | 30.54\% | 33.9 | 33.9 | 50\% | 50\% |
| 63 | 9 | 15 | 0.6000 | 21.33\% | 21.33\% | 3.2 | 3.2 | 281\% | 281\% |
| 64 | 0 | 3 | 0.0000 | 26.67\% | 26.67\% | 0.8 | 0.8 | 0\% | 0\% |
| 65 | 0 | 1 | 0.0000 | 30.00\% | 30.00\% | 0.3 | 0.3 | 0\% | 0\% |
| 66 | 0 | 1 | 0.0000 | 20.00\% | 20.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 67 | 0 | 1 | 0.0000 | 20.00\% | 20.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 92 | 392 |  |  |  | 124.6 | 124.6 | 74\% | 74\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 92 | 392 |  |  |  | 124.6 | 124.6 | 74\% | 74\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY
MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

| Age | TABLE 4B |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Retirements | Total Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 26 | 86 | 0.3023 | 40.00\% | 40.00\% | 34.4 | 34.4 | 76\% | 76\% |
| 51 | 5 | 12 | 0.4167 | 40.00\% | 40.00\% | 4.8 | 4.8 | 104\% | 104\% |
| 52 | 9 | 18 | 0.5000 | 40.00\% | 40.00\% | 7.2 | 7.2 | 125\% | 125\% |
| 53 | 3 | 10 | 0.3000 | 40.00\% | 40.00\% | 4.0 | 4.0 | 75\% | 75\% |
| 54 | 1 | 9 | 0.1111 | 40.00\% | 40.00\% | 3.6 | 3.6 | 28\% | 28\% |
| 55 | 0 | 10 | 0.0000 | 40.00\% | 40.00\% | 4.0 | 4.0 | 0\% | 0\% |
| 56 | 2 | 8 | 0.2500 | 40.00\% | 40.00\% | 3.2 | 3.2 | 63\% | 63\% |
| 57 | 1 | 6 | 0.1667 | 40.00\% | 40.00\% | 2.4 | 2.4 | 42\% | 42\% |
| 58 | 0 | 2 | 0.0000 | 40.00\% | 40.00\% | 0.8 | 0.8 | 0\% | 0\% |
| 59 | 0 | 2 | 0.0000 | 40.00\% | 40.00\% | 0.8 | 0.8 | 0\% | 0\% |
| 60 | 1 | 6 | 0.1667 | 40.00\% | 40.00\% | 2.4 | 2.4 | 42\% | 42\% |
| 61 | 1 | 1 | 1.0000 | 40.00\% | 40.00\% | 0.4 | 0.4 | 250\% | 250\% |
| 62 | 2 | 2 | 1.0000 | 60.00\% | 60.00\% | 1.2 | 1.2 | 167\% | 167\% |
| 63 | 1 | 1 | 1.0000 | 40.00\% | 40.00\% | 0.4 | 0.4 | 250\% | 250\% |
| 64 | 0 | 1 | 0.0000 | 40.00\% | 40.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 60.00\% | 60.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 40.00\% | 40.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 40.00\% | 40.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 40.00\% | 40.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 40.00\% | 40.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 52 | 174 |  |  |  | 70.0 | 70.0 | 74\% | 74\% |
| Other | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 52 | 174 |  |  |  | 70.0 | 70.0 | 74\% | 74\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY MEN AND WOMEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 4C |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements <br> Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 8 | 17 | 0.4706 | 20.00\% | 20.00\% | 3.4 | 3.4 | 235\% | 235\% |
| 51 | 1 | 1 | 1.0000 | 20.00\% | 20.00\% | 0.2 | 0.2 | 500\% | 500\% |
| 52 | 2 | 2 | 1.0000 | 20.00\% | 20.00\% | 0.4 | 0.4 | 500\% | 500\% |
| 53 | 1 | 2 | 0.5000 | 20.00\% | 20.00\% | 0.4 | 0.4 | 250\% | 250\% |
| 54 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 2 | 12 | 0.1667 | 20.00\% | 20.00\% | 2.4 | 2.4 | 83\% | 83\% |
| 56 | 1 | 1 | 1.0000 | 20.00\% | 20.00\% | 0.2 | 0.2 | 500\% | 500\% |
| 57 | 1 | 35 | 0.0286 | 20.00\% | 20.00\% | 7.0 | 7.0 | 14\% | 14\% |
| 58 | 0 | 7 | 0.0000 | 20.00\% | 20.00\% | 1.4 | 1.4 | 0\% | 0\% |
| 59 | 0 | 6 | 0.0000 | 20.00\% | 20.00\% | 1.2 | 1.2 | 0\% | 0\% |
| 60 | 0 | 2 | 0.0000 | 20.00\% | 20.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 61 | 1 | 5 | 0.2000 | 20.00\% | 20.00\% | 1.0 | 1.0 | 100\% | 100\% |
| 62 | 15 | 109 | 0.1376 | 30.00\% | 30.00\% | 32.7 | 32.7 | 46\% | 46\% |
| 63 | 8 | 14 | 0.5714 | 20.00\% | 20.00\% | 2.8 | 2.8 | 286\% | 286\% |
| 64 | 0 | 2 | 0.0000 | 20.00\% | 20.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 65 | 0 | 1 | 0.0000 | 30.00\% | 30.00\% | 0.3 | 0.3 | 0\% | 0\% |
| 66 | 0 | 1 | 0.0000 | 20.00\% | 20.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 67 | 0 | 1 | 0.0000 | 20.00\% | 20.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 40 | 218 |  |  |  | 54.6 | 54.6 | 73\% | 73\% |
| Other | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 40 | 218 |  |  |  | 54.6 | 54.6 | 73\% | 73\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY <br> TOTAL - MEN AND WOMEN

|  | TABLE 5A |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements <br> Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2)/(3) } \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 12 | 0.0000 | 18.75\% | 18.75\% | 2.3 | 2.3 | 0\% | 0\% |
| 52 | 1 | 2 | 0.5000 | 20.00\% | 20.00\% | 0.4 | 0.4 | 250\% | 250\% |
| 53 | 0 | 1 | 0.0000 | 20.00\% | 20.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 54 | 0 | 2 | 0.0000 | 17.50\% | 17.50\% | 0.4 | 0.4 | 0\% | 0\% |
| 55 | 0 | 1 | 0.0000 | 20.00\% | 20.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 56 | 0 | 2 | 0.0000 | 20.00\% | 20.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 57 | 0 | 1 | 0.0000 | 20.00\% | 20.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 58 | 1 | 18 | 0.0556 | 15.28\% | 15.28\% | 2.8 | 2.8 | 36\% | 36\% |
| 59 | 1 | 4 | 0.2500 | 15.00\% | 15.00\% | 0.6 | 0.6 | 167\% | 167\% |
| 60 | 0 | 4 | 0.0000 | 16.25\% | 16.25\% | 0.7 | 0.7 | 0\% | 0\% |
| 61 | 0 | 4 | 0.0000 | 18.75\% | 18.75\% | 0.8 | 0.8 | 0\% | 0\% |
| 62 | 0 | 2 | 0.0000 | 25.00\% | 25.00\% | 0.5 | 0.5 | 0\% | 0\% |
| 63 | 7 | 45 | 0.1556 | 15.00\% | 15.00\% | 6.8 | 6.8 | 104\% | 104\% |
| 64 | 3 | 5 | 0.6000 | 15.00\% | 15.00\% | 0.8 | 0.8 | 400\% | 400\% |
| 65 | 0 | 2 | 0.0000 | 25.00\% | 25.00\% | 0.5 | 0.5 | 0\% | 0\% |
| 66 | 0 | 1 | 0.0000 | 15.00\% | 15.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 67 | 0 | 1 | 0.0000 | 15.00\% | 15.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 13 | 107 |  |  |  | 17.6 | 17.6 | 74\% | 74\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 13 | 107 |  |  |  | 17.6 | 17.6 | 74\% | 74\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 5B |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements <br> Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } / \text { (3) } \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected $\text { (2) } /(7)$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 9 | 0.0000 | 20.00\% | 20.00\% | 1.8 | 1.8 | 0\% | 0\% |
| 52 | 1 | 2 | 0.5000 | 20.00\% | 20.00\% | 0.4 | 0.4 | 250\% | 250\% |
| 53 | 0 | 1 | 0.0000 | 20.00\% | 20.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 54 | 0 | 1 | 0.0000 | 20.00\% | 20.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 55 | 0 | 1 | 0.0000 | 20.00\% | 20.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 56 | 0 | 2 | 0.0000 | 20.00\% | 20.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 57 | 0 | 1 | 0.0000 | 20.00\% | 20.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 58 | 1 | 1 | 1.0000 | 20.00\% | 20.00\% | 0.2 | 0.2 | 500\% | 500\% |
| 59 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 60 | 0 | 1 | 0.0000 | 20.00\% | 20.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 61 | 0 | 3 | 0.0000 | 20.00\% | 20.00\% | 0.6 | 0.6 | 0\% | 0\% |
| 62 | 0 | 0 | N/A | 25.00\% | 25.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 25.00\% | 25.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 2 | 22 |  |  |  | 4.4 | 4.4 | 45\% | 45\% |
| Other | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 2 | 22 |  |  |  | 4.4 | 4.4 | 45\% | 45\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 5C |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013$\qquad$ Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2)/(3) } \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | Proposed $\text { (3) } \times(6)$ | Expected $(2) /(7)$ | Proposed $(\mathbf{2}) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 3 | 0.0000 | 15.00\% | 15.00\% | 0.5 | 0.5 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 0 | 1 | 0.0000 | 15.00\% | 15.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 55 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 56 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 57 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 58 | 0 | 17 | 0.0000 | 15.00\% | 15.00\% | 2.6 | 2.6 | 0\% | 0\% |
| 59 | 1 | 4 | 0.2500 | 15.00\% | 15.00\% | 0.6 | 0.6 | 167\% | 167\% |
| 60 | 0 | 3 | 0.0000 | 15.00\% | 15.00\% | 0.5 | 0.5 | 0\% | 0\% |
| 61 | 0 | 1 | 0.0000 | 15.00\% | 15.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 62 | 0 | 2 | 0.0000 | 25.00\% | 25.00\% | 0.5 | 0.5 | 0\% | 0\% |
| 63 | 7 | 45 | 0.1556 | 15.00\% | 15.00\% | 6.8 | 6.8 | 104\% | 104\% |
| 64 | 3 | 5 | 0.6000 | 15.00\% | 15.00\% | 0.8 | 0.8 | 400\% | 400\% |
| 65 | 0 | 2 | 0.0000 | 25.00\% | 25.00\% | 0.5 | 0.5 | 0\% | 0\% |
| 66 | 0 | 1 | 0.0000 | 15.00\% | 15.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 67 | 0 | 1 | 0.0000 | 15.00\% | 15.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 11 | 85 |  |  |  | 13.2 | 13.2 | 84\% | 84\% |
| Other | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 11 | 85 |  |  |  | 13.2 | 13.2 | 84\% | 84\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY TOTAL - MEN AND WOMEN

|  | TABLE 5A |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements <br> Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2)/(3) } \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ (3) \times(6) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 12 | 61 | 0.1967 | 19.18\% | 19.18\% | 11.7 | 11.7 | 103\% | 103\% |
| 52 | 6 | 11 | 0.5455 | 18.64\% | 18.64\% | 2.1 | 2.1 | 293\% | 293\% |
| 53 | 6 | 11 | 0.5455 | 19.09\% | 19.09\% | 2.1 | 2.1 | 286\% | 286\% |
| 54 | 3 | 8 | 0.3750 | 19.38\% | 19.38\% | 1.6 | 1.6 | 194\% | 194\% |
| 55 | 5 | 10 | 0.5000 | 19.50\% | 19.50\% | 2.0 | 2.0 | 256\% | 256\% |
| 56 | 6 | 22 | 0.2727 | 17.05\% | 17.05\% | 3.8 | 3.8 | 160\% | 160\% |
| 57 | 1 | 4 | 0.2500 | 18.75\% | 18.75\% | 0.8 | 0.8 | 133\% | 133\% |
| 58 | 6 | 34 | 0.1765 | 15.44\% | 15.44\% | 5.3 | 5.3 | 114\% | 114\% |
| 59 | 1 | 8 | 0.1250 | 16.25\% | 16.25\% | 1.3 | 1.3 | 77\% | 77\% |
| 60 | 1 | 10 | 0.1000 | 16.00\% | 16.00\% | 1.6 | 1.6 | 63\% | 63\% |
| 61 | 0 | 5 | 0.0000 | 18.00\% | 18.00\% | 0.9 | 0.9 | 0\% | 0\% |
| 62 | 0 | 4 | 0.0000 | 25.00\% | 25.00\% | 1.0 | 1.0 | 0\% | 0\% |
| 63 | 14 | 78 | 0.1795 | 15.00\% | 15.00\% | 11.7 | 11.7 | 120\% | 120\% |
| 64 | 3 | 9 | 0.3333 | 15.00\% | 15.00\% | 1.4 | 1.4 | 222\% | 222\% |
| 65 | 1 | 3 | 0.3333 | 25.00\% | 25.00\% | 0.8 | 0.8 | 133\% | 133\% |
| 66 | 0 | 1 | 0.0000 | 15.00\% | 15.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 67 | 0 | 2 | 0.0000 | 15.00\% | 15.00\% | 0.3 | 0.3 | 0\% | 0\% |
| 68 | 0 | 1 | 0.0000 | 15.00\% | 15.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 65 | 282 |  |  |  | 48.3 | 48.3 | 135\% | 135\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 65 | 282 |  |  |  | 48.3 | 48.3 | 135\% | 135\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 5B |  |  | Assumed Probability |  | Expected Retirements |  | Actual/Expected |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } /(\mathbf{3}) \\ & \hline \end{aligned}$ | Expected | Proposed | Expected <br> (3) $\times(5)$ | $\begin{gathered} \text { Proposed } \\ (3) \times(6) \\ \hline \end{gathered}$ | Expected $\text { (2) } /(7)$ | $\begin{aligned} & \text { Proposed } \\ & (2) /(8) \\ & \hline \end{aligned}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 9 | 51 | 0.1765 | 20.00\% | 20.00\% | 10.2 | 10.2 | 88\% | 88\% |
| 52 | 3 | 8 | 0.3750 | 20.00\% | 20.00\% | 1.6 | 1.6 | 188\% | 188\% |
| 53 | 4 | 9 | 0.4444 | 20.00\% | 20.00\% | 1.8 | 1.8 | 222\% | 222\% |
| 54 | 3 | 7 | 0.4286 | 20.00\% | 20.00\% | 1.4 | 1.4 | 214\% | 214\% |
| 55 | 4 | 9 | 0.4444 | 20.00\% | 20.00\% | 1.8 | 1.8 | 222\% | 222\% |
| 56 | 0 | 9 | 0.0000 | 20.00\% | 20.00\% | 1.8 | 1.8 | 0\% | 0\% |
| 57 | 0 | 3 | 0.0000 | 20.00\% | 20.00\% | 0.6 | 0.6 | 0\% | 0\% |
| 58 | 3 | 3 | 1.0000 | 20.00\% | 20.00\% | 0.6 | 0.6 | 500\% | 500\% |
| 59 | 0 | 2 | 0.0000 | 20.00\% | 20.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 60 | 0 | 2 | 0.0000 | 20.00\% | 20.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 61 | 0 | 3 | 0.0000 | 20.00\% | 20.00\% | 0.6 | 0.6 | 0\% | 0\% |
| 62 | 0 | 0 | N/A | 25.00\% | 25.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 1 | 1 | 1.0000 | 25.00\% | 25.00\% | 0.3 | 0.3 | 400\% | 400\% |
| 66 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 27 | 107 |  |  |  | 21.5 | 21.5 | 126\% | 126\% |
| Other | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 27 | 107 |  |  |  | 21.5 | 21.5 | 126\% | 126\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 5C |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total Exposed | Actual Rate (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 3 | 10 | 0.3000 | 15.00\% | 15.00\% | 1.5 | 1.5 | 200\% | 200\% |
| 52 | 3 | 3 | 1.0000 | 15.00\% | 15.00\% | 0.5 | 0.5 | 667\% | 667\% |
| 53 | 2 | 2 | 1.0000 | 15.00\% | 15.00\% | 0.3 | 0.3 | 667\% | 667\% |
| 54 | 0 | 1 | 0.0000 | 15.00\% | 15.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 55 | 1 | 1 | 1.0000 | 15.00\% | 15.00\% | 0.2 | 0.2 | 667\% | 667\% |
| 56 | 6 | 13 | 0.4615 | 15.00\% | 15.00\% | 2.0 | 2.0 | 308\% | 308\% |
| 57 | 1 | 1 | 1.0000 | 15.00\% | 15.00\% | 0.2 | 0.2 | 667\% | 667\% |
| 58 | 3 | 31 | 0.0968 | 15.00\% | 15.00\% | 4.7 | 4.7 | 65\% | 65\% |
| 59 | 1 | 6 | 0.1667 | 15.00\% | 15.00\% | 0.9 | 0.9 | 111\% | 111\% |
| 60 | 1 | 8 | 0.1250 | 15.00\% | 15.00\% | 1.2 | 1.2 | 83\% | 83\% |
| 61 | 0 | 2 | 0.0000 | 15.00\% | 15.00\% | 0.3 | 0.3 | 0\% | 0\% |
| 62 | 0 | 4 | 0.0000 | 25.00\% | 25.00\% | 1.0 | 1.0 | 0\% | 0\% |
| 63 | 14 | 78 | 0.1795 | 15.00\% | 15.00\% | 11.7 | 11.7 | 120\% | 120\% |
| 64 | 3 | 9 | 0.3333 | 15.00\% | 15.00\% | 1.4 | 1.4 | 222\% | 222\% |
| 65 | 0 | 2 | 0.0000 | 25.00\% | 25.00\% | 0.5 | 0.5 | 0\% | 0\% |
| 66 | 0 | 1 | 0.0000 | 15.00\% | 15.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 67 | 0 | 2 | 0.0000 | 15.00\% | 15.00\% | 0.3 | 0.3 | 0\% | 0\% |
| 68 | 0 | 1 | 0.0000 | 15.00\% | 15.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 38 | 175 |  |  |  | 26.9 | 26.9 | 142\% | 142\% |
| Other | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 38 | 175 |  |  |  | 26.9 | 26.9 | 142\% | 142\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY TOTAL - MEN AND WOMEN

|  | TABLE 6A |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 12 | 0.0000 | 13.33\% | 13.33\% | 1.6 | 1.6 | 0\% | 0\% |
| 53 | 4 | 15 | 0.2667 | 13.67\% | 13.67\% | 2.1 | 2.1 | 195\% | 195\% |
| 54 | 2 | 14 | 0.1429 | 13.93\% | 13.93\% | 2.0 | 2.0 | 103\% | 103\% |
| 55 | 3 | 18 | 0.1667 | 13.89\% | 13.89\% | 2.5 | 2.5 | 120\% | 120\% |
| 56 | 2 | 12 | 0.1667 | 14.58\% | 14.58\% | 1.8 | 1.8 | 114\% | 114\% |
| 57 | 4 | 13 | 0.3077 | 13.46\% | 13.46\% | 1.8 | 1.8 | 229\% | 229\% |
| 58 | 2 | 11 | 0.1818 | 13.64\% | 13.64\% | 1.5 | 1.5 | 133\% | 133\% |
| 59 | 0 | 22 | 0.0000 | 11.59\% | 11.59\% | 2.6 | 2.6 | 0\% | 0\% |
| 60 | 3 | 30 | 0.1000 | 11.67\% | 11.67\% | 3.5 | 3.5 | 86\% | 86\% |
| 61 | 5 | 23 | 0.2174 | 15.00\% | 15.00\% | 3.5 | 3.5 | 145\% | 145\% |
| 62 | 3 | 20 | 0.1500 | 21.50\% | 21.50\% | 4.3 | 4.3 | 70\% | 70\% |
| 63 | 3 | 16 | 0.1875 | 15.31\% | 15.31\% | 2.5 | 2.5 | 122\% | 122\% |
| 64 | 6 | 37 | 0.1622 | 15.00\% | 15.00\% | 5.6 | 5.6 | 108\% | 108\% |
| 65 | 6 | 28 | 0.2143 | 20.00\% | 20.00\% | 5.6 | 5.6 | 107\% | 107\% |
| 66 | 4 | 25 | 0.1600 | 15.20\% | 15.20\% | 3.8 | 3.8 | 105\% | 105\% |
| 67 | 2 | 19 | 0.1053 | 15.26\% | 15.26\% | 2.9 | 2.9 | 69\% | 69\% |
| 68 | 4 | 16 | 0.2500 | 15.31\% | 15.31\% | 2.5 | 2.5 | 163\% | 163\% |
| 69 | 2 | 11 | 0.1818 | 15.45\% | 15.45\% | 1.7 | 1.7 | 118\% | 118\% |
| 70 | 1 | 6 | 0.1667 | 100.00\% | 100.00\% | 6.0 | 6.0 | 17\% | 17\% |
| Subtotal | 56 | 348 |  |  |  | 57.4 | 57.4 | 98\% | 98\% |
| Other | 3 | 16 | 0.1875 | 100.00\% | 100.00\% | 16.0 | 16.0 | 19\% | 19\% |
| Total | 59 | 364 |  |  |  | 73.4 | 73.4 | 80\% | 80\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

| Age | TABLE 6B |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 8 | 0.0000 | 15.00\% | 15.00\% | 1.2 | 1.2 | 0\% | 0\% |
| 53 | 3 | 11 | 0.2727 | 15.00\% | 15.00\% | 1.7 | 1.7 | 182\% | 182\% |
| 54 | 1 | 11 | 0.0909 | 15.00\% | 15.00\% | 1.7 | 1.7 | 61\% | 61\% |
| 55 | 2 | 14 | 0.1429 | 15.00\% | 15.00\% | 2.1 | 2.1 | 95\% | 95\% |
| 56 | 2 | 11 | 0.1818 | 15.00\% | 15.00\% | 1.7 | 1.7 | 121\% | 121\% |
| 57 | 3 | 9 | 0.3333 | 15.00\% | 15.00\% | 1.4 | 1.4 | 222\% | 222\% |
| 58 | 2 | 8 | 0.2500 | 15.00\% | 15.00\% | 1.2 | 1.2 | 167\% | 167\% |
| 59 | 0 | 7 | 0.0000 | 15.00\% | 15.00\% | 1.1 | 1.1 | 0\% | 0\% |
| 60 | 1 | 10 | 0.1000 | 15.00\% | 15.00\% | 1.5 | 1.5 | 67\% | 67\% |
| 61 | 4 | 10 | 0.4000 | 15.00\% | 15.00\% | 1.5 | 1.5 | 267\% | 267\% |
| 62 | 3 | 6 | 0.5000 | 25.00\% | 25.00\% | 1.5 | 1.5 | 200\% | 200\% |
| 63 | 1 | 1 | 1.0000 | 20.00\% | 20.00\% | 0.2 | 0.2 | 500\% | 500\% |
| 64 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 25.00\% | 25.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 1 | 0.0000 | 20.00\% | 20.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 67 | 0 | 1 | 0.0000 | 20.00\% | 20.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 68 | 0 | 1 | 0.0000 | 20.00\% | 20.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 69 | 0 | 1 | 0.0000 | 20.00\% | 20.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 22 | 110 |  |  |  | 17.4 | 17.4 | 127\% | 127\% |
| Other | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 22 | 110 |  |  |  | 17.4 | 17.4 | 127\% | 127\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 6C |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 4 | 0.0000 | 10.00\% | 10.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 53 | 1 | 4 | 0.2500 | 10.00\% | 10.00\% | 0.4 | 0.4 | 250\% | 250\% |
| 54 | 1 | 3 | 0.3333 | 10.00\% | 10.00\% | 0.3 | 0.3 | 333\% | 333\% |
| 55 | 1 | 4 | 0.2500 | 10.00\% | 10.00\% | 0.4 | 0.4 | 250\% | 250\% |
| 56 | 0 | 1 | 0.0000 | 10.00\% | 10.00\% | 0.1 | 0.1 | 0\% | 0\% |
| 57 | 1 | 4 | 0.2500 | 10.00\% | 10.00\% | 0.4 | 0.4 | 250\% | 250\% |
| 58 | 0 | 3 | 0.0000 | 10.00\% | 10.00\% | 0.3 | 0.3 | 0\% | 0\% |
| 59 | 0 | 15 | 0.0000 | 10.00\% | 10.00\% | 1.5 | 1.5 | 0\% | 0\% |
| 60 | 2 | 20 | 0.1000 | 10.00\% | 10.00\% | 2.0 | 2.0 | 100\% | 100\% |
| 61 | 1 | 13 | 0.0769 | 15.00\% | 15.00\% | 2.0 | 2.0 | 51\% | 51\% |
| 62 | 0 | 14 | 0.0000 | 20.00\% | 20.00\% | 2.8 | 2.8 | 0\% | 0\% |
| 63 | 2 | 15 | 0.1333 | 15.00\% | 15.00\% | 2.3 | 2.3 | 89\% | 89\% |
| 64 | 6 | 37 | 0.1622 | 15.00\% | 15.00\% | 5.6 | 5.6 | 108\% | 108\% |
| 65 | 6 | 28 | 0.2143 | 20.00\% | 20.00\% | 5.6 | 5.6 | 107\% | 107\% |
| 66 | 4 | 24 | 0.1667 | 15.00\% | 15.00\% | 3.6 | 3.6 | 111\% | 111\% |
| 67 | 2 | 18 | 0.1111 | 15.00\% | 15.00\% | 2.7 | 2.7 | 74\% | 74\% |
| 68 | 4 | 15 | 0.2667 | 15.00\% | 15.00\% | 2.3 | 2.3 | 178\% | 178\% |
| 69 | 2 | 10 | 0.2000 | 15.00\% | 15.00\% | 1.5 | 1.5 | 133\% | 133\% |
| 70 | 1 | 6 | 0.1667 | 100.00\% | 100.00\% | 6.0 | 6.0 | 17\% | 17\% |
| Subtotal | 34 | 238 |  |  |  | 40.0 | 40.0 | 85\% | 85\% |
| Other | 3 | 16 | 0.1875 | 100.00\% | 100.00\% | 16.0 | 16.0 | 19\% | 19\% |
| Total | 37 | 254 |  |  |  | 56.0 | 56.0 | 66\% | 66\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY TOTAL - MEN AND WOMEN

|  | TABLE 6A |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed <br> (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 9 | 51 | 0.1765 | 14.12\% | 14.12\% | 7.2 | 7.2 | 125\% | 125\% |
| 53 | 11 | 48 | 0.2292 | 14.48\% | 14.48\% | 7.0 | 7.0 | 158\% | 158\% |
| 54 | 13 | 45 | 0.2889 | 14.44\% | 14.44\% | 6.5 | 6.5 | 200\% | 200\% |
| 55 | 8 | 43 | 0.1860 | 14.19\% | 14.19\% | 6.1 | 6.1 | 131\% | 131\% |
| 56 | 10 | 38 | 0.2632 | 14.61\% | 14.61\% | 5.6 | 5.6 | 180\% | 180\% |
| 57 | 17 | 42 | 0.4048 | 13.81\% | 13.81\% | 5.8 | 5.8 | 293\% | 293\% |
| 58 | 11 | 31 | 0.3548 | 13.23\% | 13.23\% | 4.1 | 4.1 | 268\% | 268\% |
| 59 | 2 | 44 | 0.0455 | 11.36\% | 11.36\% | 5.0 | 5.0 | 40\% | 40\% |
| 60 | 6 | 45 | 0.1333 | 11.67\% | 11.67\% | 5.3 | 5.3 | 114\% | 114\% |
| 61 | 13 | 42 | 0.3095 | 15.00\% | 15.00\% | 6.3 | 6.3 | 206\% | 206\% |
| 62 | 6 | 33 | 0.1818 | 21.36\% | 21.36\% | 7.1 | 7.1 | 85\% | 85\% |
| 63 | 4 | 26 | 0.1538 | 15.58\% | 15.58\% | 4.1 | 4.1 | 99\% | 99\% |
| 64 | 11 | 70 | 0.1571 | 15.14\% | 15.14\% | 10.6 | 10.6 | 104\% | 104\% |
| 65 | 13 | 57 | 0.2281 | 20.18\% | 20.18\% | 11.5 | 11.5 | 113\% | 113\% |
| 66 | 7 | 44 | 0.1591 | 15.23\% | 15.23\% | 6.7 | 6.7 | 104\% | 104\% |
| 67 | 4 | 31 | 0.1290 | 15.16\% | 15.16\% | 4.7 | 4.7 | 85\% | 85\% |
| 68 | 6 | 26 | 0.2308 | 15.19\% | 15.19\% | 4.0 | 4.0 | 152\% | 152\% |
| 69 | 5 | 21 | 0.2381 | 15.24\% | 15.24\% | 3.2 | 3.2 | 156\% | 156\% |
| 70 | 2 | 14 | 0.1429 | 100.00\% | 100.00\% | 14.0 | 14.0 | 14\% | 14\% |
| Subtotal | 158 | 751 |  |  |  | 124.5 | 124.5 | 127\% | 127\% |
| Other | 8 | 44 | 0.1818 | 100.00\% | 100.00\% | 44.0 | 44.0 | 18\% | 18\% |
| Total | 166 | 795 |  |  |  | 168.5 | 168.5 | 99\% | 99\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 6B |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 6 | 42 | 0.1429 | 15.00\% | 15.00\% | 6.3 | 6.3 | 95\% | 95\% |
| 53 | 9 | 43 | 0.2093 | 15.00\% | 15.00\% | 6.5 | 6.5 | 140\% | 140\% |
| 54 | 10 | 40 | 0.2500 | 15.00\% | 15.00\% | 6.0 | 6.0 | 167\% | 167\% |
| 55 | 4 | 36 | 0.1111 | 15.00\% | 15.00\% | 5.4 | 5.4 | 74\% | 74\% |
| 56 | 8 | 35 | 0.2286 | 15.00\% | 15.00\% | 5.3 | 5.3 | 152\% | 152\% |
| 57 | 12 | 32 | 0.3750 | 15.00\% | 15.00\% | 4.8 | 4.8 | 250\% | 250\% |
| 58 | 8 | 20 | 0.4000 | 15.00\% | 15.00\% | 3.0 | 3.0 | 267\% | 267\% |
| 59 | 1 | 12 | 0.0833 | 15.00\% | 15.00\% | 1.8 | 1.8 | 56\% | 56\% |
| 60 | 2 | 15 | 0.1333 | 15.00\% | 15.00\% | 2.3 | 2.3 | 89\% | 89\% |
| 61 | 7 | 15 | 0.4667 | 15.00\% | 15.00\% | 2.3 | 2.3 | 311\% | 311\% |
| 62 | 4 | 9 | 0.4444 | 25.00\% | 25.00\% | 2.3 | 2.3 | 178\% | 178\% |
| 63 | 1 | 3 | 0.3333 | 20.00\% | 20.00\% | 0.6 | 0.6 | 167\% | 167\% |
| 64 | 0 | 2 | 0.0000 | 20.00\% | 20.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 65 | 0 | 2 | 0.0000 | 25.00\% | 25.00\% | 0.5 | 0.5 | 0\% | 0\% |
| 66 | 1 | 2 | 0.5000 | 20.00\% | 20.00\% | 0.4 | 0.4 | 250\% | 250\% |
| 67 | 0 | 1 | 0.0000 | 20.00\% | 20.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 68 | 0 | 1 | 0.0000 | 20.00\% | 20.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 69 | 0 | 1 | 0.0000 | 20.00\% | 20.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 73 | 311 |  |  |  | 48.3 | 48.3 | 151\% | 151\% |
| Other | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 73 | 311 |  |  |  | 48.3 | 48.3 | 151\% | 151\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - MANDATED RETIREMENT BENEFIT

| Age | TABLE 6C |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements <br> Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 3 | 9 | 0.3333 | 10.00\% | 10.00\% | 0.9 | 0.9 | 333\% | 333\% |
| 53 | 2 | 5 | 0.4000 | 10.00\% | 10.00\% | 0.5 | 0.5 | 400\% | 400\% |
| 54 | 3 | 5 | 0.6000 | 10.00\% | 10.00\% | 0.5 | 0.5 | 600\% | 600\% |
| 55 | 4 | 7 | 0.5714 | 10.00\% | 10.00\% | 0.7 | 0.7 | 571\% | 571\% |
| 56 | 2 | 3 | 0.6667 | 10.00\% | 10.00\% | 0.3 | 0.3 | 667\% | 667\% |
| 57 | 5 | 10 | 0.5000 | 10.00\% | 10.00\% | 1.0 | 1.0 | 500\% | 500\% |
| 58 | 3 | 11 | 0.2727 | 10.00\% | 10.00\% | 1.1 | 1.1 | 273\% | 273\% |
| 59 | 1 | 32 | 0.0313 | 10.00\% | 10.00\% | 3.2 | 3.2 | 31\% | 31\% |
| 60 | 4 | 30 | 0.1333 | 10.00\% | 10.00\% | 3.0 | 3.0 | 133\% | 133\% |
| 61 | 6 | 27 | 0.2222 | 15.00\% | 15.00\% | 4.1 | 4.1 | 148\% | 148\% |
| 62 | 2 | 24 | 0.0833 | 20.00\% | 20.00\% | 4.8 | 4.8 | 42\% | 42\% |
| 63 | 3 | 23 | 0.1304 | 15.00\% | 15.00\% | 3.5 | 3.5 | 87\% | 87\% |
| 64 | 11 | 68 | 0.1618 | 15.00\% | 15.00\% | 10.2 | 10.2 | 108\% | 108\% |
| 65 | 13 | 55 | 0.2364 | 20.00\% | 20.00\% | 11.0 | 11.0 | 118\% | 118\% |
| 66 | 6 | 42 | 0.1429 | 15.00\% | 15.00\% | 6.3 | 6.3 | 95\% | 95\% |
| 67 | 4 | 30 | 0.1333 | 15.00\% | 15.00\% | 4.5 | 4.5 | 89\% | 89\% |
| 68 | 6 | 25 | 0.2400 | 15.00\% | 15.00\% | 3.8 | 3.8 | 160\% | 160\% |
| 69 | 5 | 20 | 0.2500 | 15.00\% | 15.00\% | 3.0 | 3.0 | 167\% | 167\% |
| 70 | 2 | 14 | 0.1429 | 100.00\% | 100.00\% | 14.0 | 14.0 | 14\% | 14\% |
| Subtotal | 85 | 440 |  |  |  | 76.3 | 76.3 | 111\% | 111\% |
| Other | 8 | 44 | 0.1818 | 100.00\% | 100.00\% | 44.0 | 44.0 | 18\% | 18\% |
| Total | 93 | 484 |  |  |  | 120.3 | 120.3 | 77\% | 77\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA RETIREMENT EXPERIENCE OF ACTIVE MEMBERS WITH UNREDUCED SERVICE TOTAL - MEN AND WOMEN

| Plan <br> Year <br> Ending <br> June 30, | TABLE 6D <br> Life Years Exposed | Actual <br> Retirements | Expected Retirements | 10-YEAR PERIOD ENDING 6/30/2013 <br> Retirement Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / Expected | $\begin{aligned} & \hline \text { Actual } \\ & \text { (3) / (2) } \\ & \hline \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 153 | 57 | 58.7 | 97\% | 37.25\% | 38.37\% |
| 2005 | 149 | 31 | 61.3 | 51\% | 20.81\% | 41.16\% |
| 2006 | 158 | 54 | 59.1 | 91\% | 34.18\% | 37.39\% |
| 2007 | 138 | 41 | 50.7 | 81\% | 29.71\% | 36.74\% |
| 2008 | 142 | 41 | 53.5 | 77\% | 28.87\% | 37.68\% |
| 2009 | 150 | 33 | 59.3 | 56\% | 22.00\% | 39.51\% |
| 2010 | 163 | 37 | 65.2 | 57\% | 22.70\% | 40.01\% |
| 2011 | 162 | 30 | 61.8 | 49\% | 18.52\% | 38.15\% |
| 2012 | 171 | 46 | 65.5 | 70\% | 26.90\% | 38.27\% |
| 2013 | 158 | 28 | 61.1 | 46\% | 17.72\% | 38.68\% |
| Total | 1,544 | 398 | 596.2 | 67\% | 25.78\% | 38.61\% |

*The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 40 .

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA
RETIREMENT EXPERIENCE OF ACTIVE MEMBERS WITH REDUCED SERVICE
TOTAL - MEN AND WOMEN

|  | TABLE 7A |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) / (3) } \end{aligned}$ | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 1 | 1 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 9 | 96 | 0.0938 | 2.00\% | 2.00\% | 1.9 | 1.9 | 469\% | 469\% |
| 56 | 4 | 82 | 0.0488 | 2.00\% | 2.00\% | 1.6 | 1.6 | 244\% | 244\% |
| 57 | 7 | 79 | 0.0886 | 2.00\% | 2.00\% | 1.6 | 1.6 | 443\% | 443\% |
| 58 | 13 | 74 | 0.1757 | 2.00\% | 2.00\% | 1.5 | 1.5 | 878\% | 878\% |
| 59 | 8 | 65 | 0.1231 | 3.00\% | 3.00\% | 2.0 | 2.0 | 410\% | 410\% |
| 60 | 8 | 65 | 0.1231 | 4.00\% | 4.00\% | 2.6 | 2.6 | 308\% | 308\% |
| 61 | 4 | 59 | 0.0678 | 5.00\% | 5.00\% | 3.0 | 3.0 | 136\% | 136\% |
| 62 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 63 | 1 | 1 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 55 | 522 |  |  |  | 14.1 | 14.1 | 390\% | 390\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 55 | 522 |  |  |  | 14.1 | 14.1 | 390\% | 390\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA
RETIREMENT EXPERIENCE OF ACTIVE MEMBERS WITH REDUCED SERVICE
TOTAL - MEN AND WOMEN

|  | TABLE 7A |  |  | Assumed | bability | 10-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) / (3) } \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 1 | 1 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 1 | 1 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 1 | 1 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 11 | 11 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 1 | 1 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 2 | 2 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 3 | 3 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 5 | 5 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 19 | 221 | 0.0860 | 2.00\% | 2.00\% | 4.4 | 4.4 | 430\% | 430\% |
| 56 | 11 | 199 | 0.0553 | 2.00\% | 2.00\% | 4.0 | 4.0 | 276\% | 276\% |
| 57 | 15 | 188 | 0.0798 | 2.00\% | 2.00\% | 3.8 | 3.8 | 399\% | 399\% |
| 58 | 16 | 163 | 0.0982 | 2.00\% | 2.00\% | 3.3 | 3.3 | 491\% | 491\% |
| 59 | 12 | 146 | 0.0822 | 3.00\% | 3.00\% | 4.4 | 4.4 | 274\% | 274\% |
| 60 | 15 | 135 | 0.1111 | 4.00\% | 4.00\% | 5.4 | 5.4 | 278\% | 278\% |
| 61 | 9 | 121 | 0.0744 | 5.00\% | 5.00\% | 6.1 | 6.1 | 149\% | 149\% |
| 62 | 1 | 1 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 63 | 2 | 2 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 64 | 1 | 1 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 1 | 1 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 127 | 1,203 |  |  |  | 31.3 | 31.3 | 406\% | 406\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 127 | 1,203 |  |  |  | 31.3 | 31.3 | 406\% | 406\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA RETIREMENT EXPERIENCE OF ACTIVE MEMBERS WITH REDUCED SERVICE TOTAL - MEN AND WOMEN

| Plan <br> Year <br> Ending <br> June 30, | TABLE 7B <br> Life Years Exposed | Actual Retirements | Expected Retirements | 10-YEAR PERIOD ENDING 6/30/2013 Retirement Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / Expected | $\begin{aligned} & \hline \text { Actual } \\ & \text { (3) / (2) } \\ & \hline \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 80 | 0 | 2.1 | 0\% | 0.00\% | 2.60\% |
| 2005 | 86 | 2 | 2.1 | 96\% | 2.33\% | 2.43\% |
| 2006 | 99 | 0 | 2.5 | 0\% | 0.00\% | 2.47\% |
| 2007 | 110 | 1 | 2.9 | 35\% | 0.91\% | 2.61\% |
| 2008 | 118 | 0 | 3.3 | 0\% | 0.00\% | 2.76\% |
| 2009 | 119 | 0 | 3.3 | 0\% | 0.00\% | 2.74\% |
| 2010 | 130 | 5 | 3.6 | 139\% | 3.85\% | 2.77\% |
| 2011 | 131 | 14 | 3.6 | 392\% | 10.69\% | 2.73\% |
| 2012 | 126 | 9 | 3.4 | 268\% | 7.14\% | 2.67\% |
| 2013 | 129 | 21 | 3.5 | 607\% | 16.28\% | 2.68\% |
| Total | 1,128 | 52 | 30.0 | 173\% | 4.61\% | 2.66\% |

*The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 40

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS

MEN

| Age | TABLE 8A |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total Exposed | Actual Rate (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed <br> (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.040\% | 0.040\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 3 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 10 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 15 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 25 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 29 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 26 | 0 | 30 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 43 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 28 | 0 | 50 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 29 | 0 | 65 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 30 | 0 | 71 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 31 | 0 | 86 | 0.00000 | 0.042\% | 0.042\% | 0.0 | 0.0 | 0\% | 0\% |
| 32 | 0 | 92 | 0.00000 | 0.044\% | 0.044\% | 0.0 | 0.0 | 0\% | 0\% |
| 33 | 0 | 105 | 0.00000 | 0.046\% | 0.046\% | 0.0 | 0.0 | 0\% | 0\% |
| 34 | 0 | 116 | 0.00000 | 0.048\% | 0.048\% | 0.1 | 0.1 | 0\% | 0\% |
| 35 | 0 | 128 | 0.00000 | 0.050\% | 0.050\% | 0.1 | 0.1 | 0\% | 0\% |
| 36 | 0 | 151 | 0.00000 | 0.052\% | 0.052\% | 0.1 | 0.1 | 0\% | 0\% |
| 37 | 0 | 157 | 0.00000 | 0.054\% | 0.054\% | 0.1 | 0.1 | 0\% | 0\% |
| 38 | 1 | 169 | 0.00592 | 0.056\% | 0.056\% | 0.1 | 0.1 | 1057\% | 1057\% |
| 39 | 0 | 173 | 0.00000 | 0.058\% | 0.058\% | 0.1 | 0.1 | 0\% | 0\% |
| 40 | 0 | 171 | 0.00000 | 0.060\% | 0.060\% | 0.1 | 0.1 | 0\% | 0\% |
| 41 | 0 | 175 | 0.00000 | 0.070\% | 0.070\% | 0.1 | 0.1 | 0\% | 0\% |
| 42 | 0 | 173 | 0.00000 | 0.080\% | 0.080\% | 0.1 | 0.1 | 0\% | 0\% |
| 43 | 0 | 156 | 0.00000 | 0.090\% | 0.090\% | 0.1 | 0.1 | 0\% | 0\% |
| 44 | 0 | 143 | 0.00000 | 0.100\% | 0.100\% | 0.1 | 0.1 | 0\% | 0\% |
| 45 | 0 | 151 | 0.00000 | 0.110\% | 0.110\% | 0.2 | 0.2 | 0\% | 0\% |
| 46 | 0 | 164 | 0.00000 | 0.120\% | 0.120\% | 0.2 | 0.2 | 0\% | 0\% |
| 47 | 0 | 181 | 0.00000 | 0.130\% | 0.130\% | 0.2 | 0.2 | 0\% | 0\% |
| 48 | 0 | 185 | 0.00000 | 0.140\% | 0.140\% | 0.3 | 0.3 | 0\% | 0\% |
| 49 | 0 | 175 | 0.00000 | 0.150\% | 0.150\% | 0.3 | 0.3 | 0\% | 0\% |
| 50 | 0 | 183 | 0.00000 | 0.160\% | 0.160\% | 0.3 | 0.3 | 0\% | 0\% |
| 51 | 1 | 164 | 0.00610 | 0.170\% | 0.170\% | 0.3 | 0.3 | 359\% | $359 \%$ |
| 52 | 0 | 176 | 0.00000 | 0.180\% | 0.180\% | 0.3 | 0.3 | 0\% | 0\% |
| 53 | 0 | 176 | 0.00000 | 0.190\% | 0.190\% | 0.3 | 0.3 | 0\% | 0\% |
| 54 | 0 | 153 | 0.00000 | 0.200\% | 0.200\% | 0.3 | 0.3 | 0\% | 0\% |
| 55 | 0 | 148 | 0.00000 | 0.210\% | 0.210\% | 0.3 | 0.3 | 0\% | 0\% |
| 56 | 0 | 121 | 0.00000 | 0.220\% | 0.220\% | 0.3 | 0.3 | 0\% | 0\% |
| 57 | 1 | 116 | 0.00862 | 0.230\% | 0.230\% | 0.3 | 0.3 | 375\% | 375\% |
| 58 | 1 | 110 | 0.00909 | 0.240\% | 0.240\% | 0.3 | 0.3 | 379\% | 379\% |
| 59 | 0 | 98 | 0.00000 | 0.250\% | 0.250\% | 0.2 | 0.2 | 0\% | 0\% |
| 60 | 0 | 93 | 0.00000 | 0.260\% | 0.260\% | 0.2 | 0.2 | 0\% | 0\% |
| 61 | 0 | 77 | 0.00000 | 0.270\% | 0.270\% | 0.2 | 0.2 | 0\% | 0\% |
| 62 | 0 | 68 | 0.00000 | 0.280\% | 0.280\% | 0.2 | 0.2 | 0\% | 0\% |
| 63 | 0 | 61 | 0.00000 | 0.290\% | 0.290\% | 0.2 | 0.2 | 0\% | 0\% |
| 64 | 0 | 40 | 0.00000 | 0.300\% | 0.300\% | 0.1 | 0.1 | 0\% | 0\% |
| 65 | 0 | 27 | 0.00000 | 0.320\% | 0.320\% | 0.1 | 0.1 | 0\% | 0\% |
| 66 | 0 | 21 | 0.00000 | 0.350\% | 0.350\% | 0.1 | 0.1 | 0\% | 0\% |
| 67 | 0 | 17 | 0.00000 | 0.390\% | 0.390\% | 0.1 | 0.1 | 0\% | 0\% |
| 68 | 0 | 13 | 0.00000 | 0.440\% | 0.440\% | 0.1 | 0.1 | 0\% | 0\% |
| 69 | 0 | 12 | 0.00000 | 0.500\% | 0.500\% | 0.1 | 0.1 | 0\% | 0\% |
| 70 | 0 | 3 | 0.00000 | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 2 | 0.00000 | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Total | 4 | 5,071 |  |  |  | 6.7 | 6.7 | 60\% | 60\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

| Age | TABLE 8B |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate $\qquad$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.020\% | 0.020\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.020\% | 0.020\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.020\% | 0.020\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 1 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 3 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 6 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 26 | 0 | 7 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 6 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 28 | 0 | 7 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 29 | 0 | 11 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 30 | 0 | 14 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 31 | 0 | 17 | 0.00000 | 0.021\% | 0.021\% | 0.0 | 0.0 | 0\% | 0\% |
| 32 | 0 | 26 | 0.00000 | 0.022\% | 0.022\% | 0.0 | 0.0 | 0\% | 0\% |
| 33 | 0 | 25 | 0.00000 | 0.023\% | 0.023\% | 0.0 | 0.0 | 0\% | 0\% |
| 34 | 0 | 27 | 0.00000 | 0.024\% | 0.024\% | 0.0 | 0.0 | 0\% | 0\% |
| 35 | 0 | 30 | 0.00000 | 0.025\% | 0.025\% | 0.0 | 0.0 | 0\% | 0\% |
| 36 | 0 | 37 | 0.00000 | 0.026\% | 0.026\% | 0.0 | 0.0 | 0\% | 0\% |
| 37 | 0 | 42 | 0.00000 | 0.027\% | 0.027\% | 0.0 | 0.0 | 0\% | 0\% |
| 38 | 0 | 44 | 0.00000 | 0.028\% | 0.028\% | 0.0 | 0.0 | 0\% | 0\% |
| 39 | 0 | 45 | 0.00000 | 0.029\% | 0.029\% | 0.0 | 0.0 | 0\% | 0\% |
| 40 | 0 | 40 | 0.00000 | 0.030\% | 0.030\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 41 | 0.00000 | 0.035\% | 0.035\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 52 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 57 | 0.00000 | 0.045\% | 0.045\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 1 | 58 | 0.01724 | 0.050\% | 0.050\% | 0.0 | 0.0 | 3448\% | 3448\% |
| 45 | 0 | 67 | 0.00000 | 0.055\% | 0.055\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 61 | 0.00000 | 0.060\% | 0.060\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 56 | 0.00000 | 0.065\% | 0.065\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 53 | 0.00000 | 0.070\% | 0.070\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 63 | 0.00000 | 0.075\% | 0.075\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 52 | 0.00000 | 0.080\% | 0.080\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 46 | 0.00000 | 0.085\% | 0.085\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 47 | 0.00000 | 0.090\% | 0.090\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 29 | 0.00000 | 0.095\% | 0.095\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 0 | 30 | 0.00000 | 0.100\% | 0.100\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 0 | 26 | 0.00000 | 0.105\% | 0.105\% | 0.0 | 0.0 | 0\% | 0\% |
| 56 | 0 | 18 | 0.00000 | 0.110\% | 0.110\% | 0.0 | 0.0 | 0\% | 0\% |
| 57 | 0 | 22 | 0.00000 | 0.115\% | 0.115\% | 0.0 | 0.0 | 0\% | 0\% |
| 58 | 0 | 25 | 0.00000 | 0.120\% | 0.120\% | 0.0 | 0.0 | 0\% | 0\% |
| 59 | 0 | 23 | 0.00000 | 0.125\% | 0.125\% | 0.0 | 0.0 | 0\% | 0\% |
| 60 | 0 | 28 | 0.00000 | 0.130\% | 0.130\% | 0.0 | 0.0 | 0\% | 0\% |
| 61 | 0 | 28 | 0.00000 | 0.135\% | 0.135\% | 0.0 | 0.0 | 0\% | 0\% |
| 62 | 0 | 24 | 0.00000 | 0.140\% | 0.140\% | 0.0 | 0.0 | 0\% | 0\% |
| 63 | 0 | 19 | 0.00000 | 0.145\% | 0.145\% | 0.0 | 0.0 | 0\% | 0\% |
| 64 | 0 | 12 | 0.00000 | 0.150\% | 0.150\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 0 | 7 | 0.00000 | 0.160\% | 0.160\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 9 | 0.00000 | 0.175\% | 0.175\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 4 | 0.00000 | 0.195\% | 0.195\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 4 | 0.00000 | 0.220\% | 0.220\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 1 | 0.00000 | 0.250\% | 0.250\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Total | 1 | 1,350 |  |  |  | 0.9 | 0.9 | 112\% | 112\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Age | TABLE 8C |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 3 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 10 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 16 | 0.00000 | 0.039\% | 0.039\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 28 | 0.00000 | 0.038\% | 0.038\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 35 | 0.00000 | 0.037\% | 0.037\% | 0.0 | 0.0 | 0\% | 0\% |
| 26 | 0 | 37 | 0.00000 | 0.036\% | 0.036\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 49 | 0.00000 | 0.038\% | 0.038\% | 0.0 | 0.0 | 0\% | 0\% |
| 28 | 0 | 57 | 0.00000 | 0.038\% | 0.038\% | 0.0 | 0.0 | 0\% | 0\% |
| 29 | 0 | 76 | 0.00000 | 0.037\% | 0.037\% | 0.0 | 0.0 | 0\% | 0\% |
| 30 | 0 | 85 | 0.00000 | 0.037\% | 0.037\% | 0.0 | 0.0 | 0\% | 0\% |
| 31 | 0 | 103 | 0.00000 | 0.039\% | 0.039\% | 0.0 | 0.0 | 0\% | 0\% |
| 32 | 0 | 118 | 0.00000 | 0.039\% | 0.039\% | 0.0 | 0.0 | 0\% | 0\% |
| 33 | 0 | 130 | 0.00000 | 0.042\% | 0.042\% | 0.1 | 0.1 | 0\% | 0\% |
| 34 | 0 | 143 | 0.00000 | 0.043\% | 0.043\% | 0.1 | 0.1 | 0\% | 0\% |
| 35 | 0 | 158 | 0.00000 | 0.045\% | 0.045\% | 0.1 | 0.1 | 0\% | 0\% |
| 36 | 0 | 188 | 0.00000 | 0.047\% | 0.047\% | 0.1 | 0.1 | 0\% | 0\% |
| 37 | 0 | 199 | 0.00000 | 0.048\% | 0.048\% | 0.1 | 0.1 | 0\% | 0\% |
| 38 | 1 | 213 | 0.00469 | 0.050\% | 0.050\% | 0.1 | 0.1 | 935\% | 935\% |
| 39 | 0 | 218 | 0.00000 | 0.052\% | 0.052\% | 0.1 | 0.1 | 0\% | 0\% |
| 40 | 0 | 211 | 0.00000 | 0.054\% | 0.054\% | 0.1 | 0.1 | 0\% | 0\% |
| 41 | 0 | 216 | 0.00000 | 0.063\% | 0.063\% | 0.1 | 0.1 | 0\% | 0\% |
| 42 | 0 | 225 | 0.00000 | 0.071\% | 0.071\% | 0.2 | 0.2 | 0\% | 0\% |
| 43 | 0 | 213 | 0.00000 | 0.078\% | 0.078\% | 0.2 | 0.2 | 0\% | 0\% |
| 44 | 1 | 201 | 0.00498 | 0.086\% | 0.086\% | 0.2 | 0.2 | 581\% | 581\% |
| 45 | 0 | 218 | 0.00000 | 0.093\% | 0.093\% | 0.2 | 0.2 | 0\% | 0\% |
| 46 | 0 | 225 | 0.00000 | 0.104\% | 0.104\% | 0.2 | 0.2 | 0\% | 0\% |
| 47 | 0 | 237 | 0.00000 | 0.115\% | 0.115\% | 0.3 | 0.3 | 0\% | 0\% |
| 48 | 0 | 238 | 0.00000 | 0.124\% | 0.124\% | 0.3 | 0.3 | 0\% | 0\% |
| 49 | 0 | 238 | 0.00000 | 0.130\% | 0.130\% | 0.3 | 0.3 | 0\% | 0\% |
| 50 | 0 | 235 | 0.00000 | 0.142\% | 0.142\% | 0.3 | 0.3 | 0\% | 0\% |
| 51 | 1 | 210 | 0.00476 | 0.151\% | 0.151\% | 0.3 | 0.3 | 315\% | 315\% |
| 52 | 0 | 223 | 0.00000 | 0.161\% | 0.161\% | 0.4 | 0.4 | 0\% | 0\% |
| 53 | 0 | 205 | 0.00000 | 0.177\% | 0.177\% | 0.4 | 0.4 | 0\% | 0\% |
| 54 | 0 | 183 | 0.00000 | 0.184\% | 0.184\% | 0.3 | 0.3 | 0\% | 0\% |
| 55 | 0 | 174 | 0.00000 | 0.194\% | 0.194\% | 0.3 | 0.3 | 0\% | 0\% |
| 56 | 0 | 139 | 0.00000 | 0.206\% | 0.206\% | 0.3 | 0.3 | 0\% | 0\% |
| 57 | 1 | 138 | 0.00725 | 0.212\% | 0.212\% | 0.3 | 0.3 | $342 \%$ | 342\% |
| 58 | 1 | 135 | 0.00741 | 0.218\% | 0.218\% | 0.3 | 0.3 | 340\% | 340\% |
| 59 | 0 | 121 | 0.00000 | 0.226\% | 0.226\% | 0.3 | 0.3 | 0\% | 0\% |
| 60 | 0 | 121 | 0.00000 | 0.230\% | 0.230\% | 0.3 | 0.3 | 0\% | 0\% |
| 61 | 0 | 105 | 0.00000 | 0.234\% | 0.234\% | 0.2 | 0.2 | 0\% | 0\% |
| 62 | 0 | 92 | 0.00000 | 0.243\% | 0.243\% | 0.2 | 0.2 | 0\% | 0\% |
| 63 | 0 | 80 | 0.00000 | 0.256\% | 0.256\% | 0.2 | 0.2 | 0\% | 0\% |
| 64 | 0 | 52 | 0.00000 | 0.265\% | 0.265\% | 0.1 | 0.1 | 0\% | 0\% |
| 65 | 0 | 34 | 0.00000 | 0.287\% | 0.287\% | 0.1 | 0.1 | 0\% | 0\% |
| 66 | 0 | 30 | 0.00000 | 0.298\% | 0.298\% | 0.1 | 0.1 | 0\% | 0\% |
| 67 | 0 | 21 | 0.00000 | 0.353\% | 0.353\% | 0.1 | 0.1 | 0\% | 0\% |
| 68 | 0 | 17 | 0.00000 | 0.388\% | 0.388\% | 0.1 | 0.1 | 0\% | 0\% |
| 69 | 0 | 13 | 0.00000 | 0.481\% | 0.481\% | 0.1 | 0.1 | 0\% | 0\% |
| 70 | 0 | 3 | 0.00000 | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 2 | 0.00000 | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Total | 5 | 6,421 |  |  |  | 7.6 | 7.6 | 66\% | 66\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA
ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS
MEN

| Age | TABLE 8A GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected <br> (7) / (3) | Proposed $(8) /(3)$ | Expected | Proposed | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 53 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 25-29 | 0 | 217 | 0.00000 | 0.040\% | 0.040\% | 0.1 | 0.1 | 0\% | 0\% |
| 30-34 | 0 | 470 | 0.00000 | 0.044\% | 0.044\% | 0.2 | 0.2 | 0\% | 0\% |
| 35-39 | 1 | 778 | 0.00129 | 0.054\% | 0.054\% | 0.4 | 0.4 | 237\% | 237\% |
| 40-44 | 0 | 818 | 0.00000 | 0.079\% | 0.079\% | 0.6 | 0.6 | 0\% | 0\% |
| 45-49 | 0 | 856 | 0.00000 | 0.131\% | 0.131\% | 1.1 | 1.1 | 0\% | 0\% |
| 50-54 | 1 | 852 | 0.00117 | 0.179\% | 0.179\% | 1.5 | 1.5 | 65\% | 65\% |
| 55-59 | 2 | 593 | 0.00337 | 0.228\% | 0.228\% | 1.4 | 1.4 | 148\% | 148\% |
| 60-64 | 0 | 339 | 0.00000 | 0.276\% | 0.276\% | 0.9 | 0.9 | 0\% | 0\% |
| 65-69 | 0 | 90 | 0.00000 | 0.382\% | 0.382\% | 0.3 | 0.3 | 0\% | 0\% |
| 70-74 | 0 | 5 | 0.00000 | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 4 | 5,071 |  |  |  | 6.7 | 6.7 | 60\% | 60\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA
ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

| Age | TABLE 8B GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected <br> (7) / (3) | Proposed $(8) /(3)$ | Expected | Proposed | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 4 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 25-29 | 0 | 37 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 30-34 | 0 | 109 | 0.00000 | 0.022\% | 0.022\% | 0.0 | 0.0 | 0\% | 0\% |
| 35-39 | 0 | 198 | 0.00000 | 0.027\% | 0.027\% | 0.1 | 0.1 | 0\% | 0\% |
| 40-44 | 1 | 248 | 0.00403 | 0.041\% | 0.041\% | 0.1 | 0.1 | 982\% | 982\% |
| 45-49 | 0 | 300 | 0.00000 | 0.065\% | 0.065\% | 0.2 | 0.2 | 0\% | 0\% |
| 50-54 | 0 | 204 | 0.00000 | 0.089\% | 0.089\% | 0.2 | 0.2 | 0\% | 0\% |
| 55-59 | 0 | 114 | 0.00000 | 0.115\% | 0.115\% | 0.1 | 0.1 | 0\% | 0\% |
| 60-64 | 0 | 111 | 0.00000 | 0.138\% | 0.138\% | 0.2 | 0.2 | 0\% | 0\% |
| 65-69 | 0 | 25 | 0.00000 | 0.184\% | 0.184\% | 0.0 | 0.0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 1 | 1,350 |  |  |  | 0.9 | 0.9 | 112\% | 112\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA
ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Age | TABLE 8C GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed $(8) /(3)$ | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 57 | 0.00000 | 0.039\% | 0.039\% | 0.0 | 0.0 | 0\% | 0\% |
| 25-29 | 0 | 254 | 0.00000 | 0.037\% | 0.037\% | 0.1 | 0.1 | 0\% | 0\% |
| 30-34 | 0 | 579 | 0.00000 | 0.040\% | 0.040\% | 0.2 | 0.2 | 0\% | 0\% |
| 35-39 | 1 | 976 | 0.00102 | 0.049\% | 0.049\% | 0.5 | 0.5 | 210\% | 210\% |
| 40-44 | 1 | 1,066 | 0.00094 | 0.070\% | 0.070\% | 0.7 | 0.7 | 134\% | 134\% |
| 45-49 | 0 | 1,156 | 0.00000 | 0.114\% | 0.114\% | 1.3 | 1.3 | 0\% | 0\% |
| 50-54 | 1 | 1,056 | 0.00095 | 0.162\% | 0.162\% | 1.7 | 1.7 | 59\% | 59\% |
| 55-59 | 2 | 707 | 0.00283 | 0.210\% | 0.210\% | 1.5 | 1.5 | 135\% | 135\% |
| 60-64 | 0 | 450 | 0.00000 | 0.242\% | 0.242\% | 1.1 | 1.1 | 0\% | 0\% |
| 65-69 | 0 | 115 | 0.00000 | 0.339\% | 0.339\% | 0.4 | 0.4 | 0\% | 0\% |
| 70-74 | 0 | 5 | 0.00000 | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 5 | 6,421 |  |  |  | 7.6 | 7.6 | 66\% | 66\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN

| Age | TABLE 8A |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 2 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 13 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 23 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 44 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 66 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 89 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 26 | 0 | 112 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 138 | 0.00000 | 0.040\% | 0.040\% | 0.1 | 0.1 | 0\% | 0\% |
| 28 | 0 | 147 | 0.00000 | 0.040\% | 0.040\% | 0.1 | 0.1 | 0\% | 0\% |
| 29 | 0 | 185 | 0.00000 | 0.040\% | 0.040\% | 0.1 | 0.1 | 0\% | 0\% |
| 30 | 0 | 223 | 0.00000 | 0.040\% | 0.040\% | 0.1 | 0.1 | 0\% | 0\% |
| 31 | 0 | 257 | 0.00000 | 0.042\% | 0.042\% | 0.1 | 0.1 | 0\% | 0\% |
| 32 | 0 | 284 | 0.00000 | 0.044\% | 0.044\% | 0.1 | 0.1 | 0\% | 0\% |
| 33 | 1 | 307 | 0.00326 | 0.046\% | 0.046\% | 0.1 | 0.1 | 708\% | 708\% |
| 34 | 0 | 337 | 0.00000 | 0.048\% | 0.048\% | 0.2 | 0.2 | 0\% | 0\% |
| 35 | 0 | 353 | 0.00000 | 0.050\% | 0.050\% | 0.2 | 0.2 | 0\% | 0\% |
| 36 | 0 | 358 | 0.00000 | 0.052\% | 0.052\% | 0.2 | 0.2 | 0\% | 0\% |
| 37 | 0 | 367 | 0.00000 | 0.054\% | 0.054\% | 0.2 | 0.2 | 0\% | 0\% |
| 38 | 1 | 384 | 0.00260 | 0.056\% | 0.056\% | 0.2 | 0.2 | 465\% | 465\% |
| 39 | 1 | 384 | 0.00260 | 0.058\% | 0.058\% | 0.2 | 0.2 | 449\% | 449\% |
| 40 | 0 | 393 | 0.00000 | 0.060\% | 0.060\% | 0.2 | 0.2 | 0\% | 0\% |
| 41 | 0 | 409 | 0.00000 | 0.070\% | 0.070\% | 0.3 | 0.3 | 0\% | 0\% |
| 42 | 1 | 414 | 0.00242 | 0.080\% | 0.080\% | 0.3 | 0.3 | 302\% | 302\% |
| 43 | 0 | 402 | 0.00000 | 0.090\% | 0.090\% | 0.4 | 0.4 | 0\% | 0\% |
| 44 | 1 | 418 | 0.00239 | 0.100\% | 0.100\% | 0.4 | 0.4 | 239\% | 239\% |
| 45 | 0 | 421 | 0.00000 | 0.110\% | 0.110\% | 0.5 | 0.5 | 0\% | 0\% |
| 46 | 0 | 438 | 0.00000 | 0.120\% | 0.120\% | 0.5 | 0.5 | 0\% | 0\% |
| 47 | 0 | 455 | 0.00000 | 0.130\% | 0.130\% | 0.6 | 0.6 | 0\% | 0\% |
| 48 | 0 | 470 | 0.00000 | 0.140\% | 0.140\% | 0.7 | 0.7 | 0\% | 0\% |
| 49 | 0 | 474 | 0.00000 | 0.150\% | 0.150\% | 0.7 | 0.7 | 0\% | 0\% |
| 50 | 0 | 459 | 0.00000 | 0.160\% | 0.160\% | 0.7 | 0.7 | 0\% | 0\% |
| 51 | 1 | 421 | 0.00238 | 0.170\% | 0.170\% | 0.7 | 0.7 | 140\% | 140\% |
| 52 | 0 | 426 | 0.00000 | 0.180\% | 0.180\% | 0.8 | 0.8 | 0\% | 0\% |
| 53 | 2 | 405 | 0.00494 | 0.190\% | 0.190\% | 0.8 | 0.8 | 260\% | 260\% |
| 54 | 1 | 377 | 0.00265 | 0.200\% | 0.200\% | 0.8 | 0.8 | 133\% | 133\% |
| 55 | 0 | 361 | 0.00000 | 0.210\% | 0.210\% | 0.8 | 0.8 | 0\% | 0\% |
| 56 | 0 | 320 | 0.00000 | 0.220\% | 0.220\% | 0.7 | 0.7 | 0\% | 0\% |
| 57 | 1 | 284 | 0.00352 | 0.230\% | 0.230\% | 0.7 | 0.7 | 153\% | 153\% |
| 58 | 2 | 244 | 0.00820 | 0.240\% | 0.240\% | 0.6 | 0.6 | 342\% | 342\% |
| 59 | 0 | 207 | 0.00000 | 0.250\% | 0.250\% | 0.5 | 0.5 | 0\% | 0\% |
| 60 | 0 | 186 | 0.00000 | 0.260\% | 0.260\% | 0.5 | 0.5 | 0\% | 0\% |
| 61 | 0 | 161 | 0.00000 | 0.270\% | 0.270\% | 0.4 | 0.4 | 0\% | 0\% |
| 62 | 1 | 133 | 0.00752 | 0.280\% | 0.280\% | 0.4 | 0.4 | 269\% | 269\% |
| 63 | 0 | 105 | 0.00000 | 0.290\% | 0.290\% | 0.3 | 0.3 | 0\% | 0\% |
| 64 | 0 | 75 | 0.00000 | 0.300\% | 0.300\% | 0.2 | 0.2 | 0\% | 0\% |
| 65 | 0 | 55 | 0.00000 | 0.320\% | 0.320\% | 0.2 | 0.2 | 0\% | 0\% |
| 66 | 0 | 40 | 0.00000 | 0.350\% | 0.350\% | 0.1 | 0.1 | 0\% | 0\% |
| 67 | 0 | 30 | 0.00000 | 0.390\% | 0.390\% | 0.1 | 0.1 | 0\% | 0\% |
| 68 | 0 | 23 | 0.00000 | 0.440\% | 0.440\% | 0.1 | 0.1 | 0\% | 0\% |
| 69 | 0 | 20 | 0.00000 | 0.500\% | 0.500\% | 0.1 | 0.1 | 0\% | 0\% |
| 70 | 0 | 3 | 0.00000 | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 2 | 0.00000 | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Total | 13 | 12,704 |  |  |  | 15.9 | 15.9 | 82\% | 82\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

| Age | TABLE 8B |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.020\% | 0.020\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 1 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 1 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 5 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 10 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 20 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 26 | 0 | 27 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 37 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 28 | 0 | 47 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 29 | 0 | 55 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 30 | 0 | 65 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 31 | 0 | 72 | 0.00000 | 0.021\% | 0.021\% | 0.0 | 0.0 | 0\% | 0\% |
| 32 | 0 | 78 | 0.00000 | 0.022\% | 0.022\% | 0.0 | 0.0 | 0\% | 0\% |
| 33 | 0 | 85 | 0.00000 | 0.023\% | 0.023\% | 0.0 | 0.0 | 0\% | 0\% |
| 34 | 0 | 96 | 0.00000 | 0.024\% | 0.024\% | 0.0 | 0.0 | 0\% | 0\% |
| 35 | 0 | 100 | 0.00000 | 0.025\% | 0.025\% | 0.0 | 0.0 | 0\% | 0\% |
| 36 | 0 | 109 | 0.00000 | 0.026\% | 0.026\% | 0.0 | 0.0 | 0\% | 0\% |
| 37 | 0 | 117 | 0.00000 | 0.027\% | 0.027\% | 0.0 | 0.0 | 0\% | 0\% |
| 38 | 0 | 135 | 0.00000 | 0.028\% | 0.028\% | 0.0 | 0.0 | 0\% | 0\% |
| 39 | 0 | 139 | 0.00000 | 0.029\% | 0.029\% | 0.0 | 0.0 | 0\% | 0\% |
| 40 | 0 | 142 | 0.00000 | 0.030\% | 0.030\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 139 | 0.00000 | 0.035\% | 0.035\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 143 | 0.00000 | 0.040\% | 0.040\% | 0.1 | 0.1 | 0\% | 0\% |
| 43 | 0 | 152 | 0.00000 | 0.045\% | 0.045\% | 0.1 | 0.1 | 0\% | 0\% |
| 44 | 1 | 145 | 0.00690 | 0.050\% | 0.050\% | 0.1 | 0.1 | 1379\% | 1379\% |
| 45 | 0 | 146 | 0.00000 | 0.055\% | 0.055\% | 0.1 | 0.1 | 0\% | 0\% |
| 46 | 0 | 141 | 0.00000 | 0.060\% | 0.060\% | 0.1 | 0.1 | 0\% | 0\% |
| 47 | 0 | 135 | 0.00000 | 0.065\% | 0.065\% | 0.1 | 0.1 | 0\% | 0\% |
| 48 | 0 | 126 | 0.00000 | 0.070\% | 0.070\% | 0.1 | 0.1 | 0\% | 0\% |
| 49 | 0 | 120 | 0.00000 | 0.075\% | 0.075\% | 0.1 | 0.1 | 0\% | 0\% |
| 50 | 0 | 105 | 0.00000 | 0.080\% | 0.080\% | 0.1 | 0.1 | 0\% | 0\% |
| 51 | 0 | 98 | 0.00000 | 0.085\% | 0.085\% | 0.1 | 0.1 | 0\% | 0\% |
| 52 | 0 | 91 | 0.00000 | 0.090\% | 0.090\% | 0.1 | 0.1 | 0\% | 0\% |
| 53 | 0 | 74 | 0.00000 | 0.095\% | 0.095\% | 0.1 | 0.1 | 0\% | 0\% |
| 54 | 0 | 80 | 0.00000 | 0.100\% | 0.100\% | 0.1 | 0.1 | 0\% | 0\% |
| 55 | 0 | 79 | 0.00000 | 0.105\% | 0.105\% | 0.1 | 0.1 | 0\% | 0\% |
| 56 | 1 | 68 | 0.01471 | 0.110\% | 0.110\% | 0.1 | 0.1 | 1337\% | 1337\% |
| 57 | 0 | 64 | 0.00000 | 0.115\% | 0.115\% | 0.1 | 0.1 | 0\% | 0\% |
| 58 | 0 | 62 | 0.00000 | 0.120\% | 0.120\% | 0.1 | 0.1 | 0\% | 0\% |
| 59 | 0 | 58 | 0.00000 | 0.125\% | 0.125\% | 0.1 | 0.1 | 0\% | 0\% |
| 60 | 0 | 54 | 0.00000 | 0.130\% | 0.130\% | 0.1 | 0.1 | 0\% | 0\% |
| 61 | 0 | 45 | 0.00000 | 0.135\% | 0.135\% | 0.1 | 0.1 | 0\% | 0\% |
| 62 | 0 | 38 | 0.00000 | 0.140\% | 0.140\% | 0.1 | 0.1 | 0\% | 0\% |
| 63 | 0 | 32 | 0.00000 | 0.145\% | 0.145\% | 0.0 | 0.0 | 0\% | 0\% |
| 64 | 0 | 20 | 0.00000 | 0.150\% | 0.150\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 0 | 13 | 0.00000 | 0.160\% | 0.160\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 12 | 0.00000 | 0.175\% | 0.175\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 6 | 0.00000 | 0.195\% | 0.195\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 6 | 0.00000 | 0.220\% | 0.220\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 3 | 0.00000 | 0.250\% | 0.250\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Total | 2 | 3,596 |  |  |  | 2.1 | 2.1 | 94\% | 94\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Age | TABLE 8C |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 2 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 14 | 0.00000 | 0.039\% | 0.039\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 24 | 0.00000 | 0.039\% | 0.039\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 49 | 0.00000 | 0.038\% | 0.038\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 76 | 0.00000 | 0.037\% | 0.037\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 109 | 0.00000 | 0.036\% | 0.036\% | 0.0 | 0.0 | 0\% | 0\% |
| 26 | 0 | 139 | 0.00000 | 0.036\% | 0.036\% | 0.1 | 0.1 | 0\% | 0\% |
| 27 | 0 | 175 | 0.00000 | 0.036\% | 0.036\% | 0.1 | 0.1 | 0\% | 0\% |
| 28 | 0 | 194 | 0.00000 | 0.035\% | 0.035\% | 0.1 | 0.1 | 0\% | 0\% |
| 29 | 0 | 240 | 0.00000 | 0.035\% | 0.035\% | 0.1 | 0.1 | 0\% | 0\% |
| 30 | 0 | 288 | 0.00000 | 0.035\% | 0.035\% | 0.1 | 0.1 | 0\% | 0\% |
| 31 | 0 | 329 | 0.00000 | 0.037\% | 0.037\% | 0.1 | 0.1 | 0\% | 0\% |
| 32 | 0 | 362 | 0.00000 | 0.039\% | 0.039\% | 0.1 | 0.1 | 0\% | 0\% |
| 33 | 1 | 392 | 0.00255 | 0.041\% | 0.041\% | 0.2 | 0.2 | 622\% | 622\% |
| 34 | 0 | 433 | 0.00000 | 0.043\% | 0.043\% | 0.2 | 0.2 | 0\% | 0\% |
| 35 | 0 | 453 | 0.00000 | 0.044\% | 0.044\% | 0.2 | 0.2 | 0\% | 0\% |
| 36 | 0 | 467 | 0.00000 | 0.046\% | 0.046\% | 0.2 | 0.2 | 0\% | 0\% |
| 37 | 0 | 484 | 0.00000 | 0.047\% | 0.047\% | 0.2 | 0.2 | 0\% | 0\% |
| 38 | 1 | 519 | 0.00193 | 0.049\% | 0.049\% | 0.3 | 0.3 | 396\% | 396\% |
| 39 | 1 | 523 | 0.00191 | 0.050\% | 0.050\% | 0.3 | 0.3 | 380\% | 380\% |
| 40 | 0 | 535 | 0.00000 | 0.052\% | 0.052\% | 0.3 | 0.3 | 0\% | 0\% |
| 41 | 0 | 548 | 0.00000 | 0.061\% | 0.061\% | 0.3 | 0.3 | 0\% | 0\% |
| 42 | 1 | 557 | 0.00180 | 0.070\% | 0.070\% | 0.4 | 0.4 | 257\% | 257\% |
| 43 | 0 | 554 | 0.00000 | 0.078\% | 0.078\% | 0.4 | 0.4 | 0\% | 0\% |
| 44 | 2 | 563 | 0.00355 | 0.087\% | 0.087\% | 0.5 | 0.5 | 408\% | 408\% |
| 45 | 0 | 567 | 0.00000 | 0.096\% | 0.096\% | 0.5 | 0.5 | 0\% | 0\% |
| 46 | 0 | 579 | 0.00000 | 0.105\% | 0.105\% | 0.6 | 0.6 | 0\% | 0\% |
| 47 | 0 | 590 | 0.00000 | 0.115\% | 0.115\% | 0.7 | 0.7 | 0\% | 0\% |
| 48 | 0 | 596 | 0.00000 | 0.125\% | 0.125\% | 0.7 | 0.7 | 0\% | 0\% |
| 49 | 0 | 594 | 0.00000 | 0.135\% | 0.135\% | 0.8 | 0.8 | 0\% | 0\% |
| 50 | 0 | 564 | 0.00000 | 0.145\% | 0.145\% | 0.8 | 0.8 | 0\% | 0\% |
| 51 | 1 | 519 | 0.00193 | 0.154\% | 0.154\% | 0.8 | 0.8 | 125\% | 125\% |
| 52 | 0 | 517 | 0.00000 | 0.164\% | 0.164\% | 0.8 | 0.8 | 0\% | 0\% |
| 53 | 2 | 479 | 0.00418 | 0.175\% | 0.175\% | 0.8 | 0.8 | 238\% | 238\% |
| 54 | 1 | 457 | 0.00219 | 0.182\% | 0.182\% | 0.8 | 0.8 | 120\% | 120\% |
| 55 | 0 | 440 | 0.00000 | 0.191\% | 0.191\% | 0.8 | 0.8 | 0\% | 0\% |
| 56 | 1 | 388 | 0.00258 | 0.201\% | 0.201\% | 0.8 | 0.8 | 128\% | 128\% |
| 57 | 1 | 348 | 0.00287 | 0.209\% | 0.209\% | 0.7 | 0.7 | 138\% | 138\% |
| 58 | 2 | 306 | 0.00654 | 0.216\% | 0.216\% | 0.7 | 0.7 | 303\% | 303\% |
| 59 | 0 | 265 | 0.00000 | 0.223\% | 0.223\% | 0.6 | 0.6 | 0\% | 0\% |
| 60 | 0 | 240 | 0.00000 | 0.231\% | 0.231\% | 0.6 | 0.6 | 0\% | 0\% |
| 61 | 0 | 206 | 0.00000 | 0.241\% | 0.241\% | 0.5 | 0.5 | 0\% | 0\% |
| 62 | 1 | 171 | 0.00585 | 0.249\% | 0.249\% | 0.4 | 0.4 | 235\% | 235\% |
| 63 | 0 | 137 | 0.00000 | 0.256\% | 0.256\% | 0.4 | 0.4 | 0\% | 0\% |
| 64 | 0 | 95 | 0.00000 | 0.268\% | 0.268\% | 0.3 | 0.3 | 0\% | 0\% |
| 65 | 0 | 68 | 0.00000 | 0.289\% | 0.289\% | 0.2 | 0.2 | 0\% | 0\% |
| 66 | 0 | 52 | 0.00000 | 0.310\% | 0.310\% | 0.2 | 0.2 | 0\% | 0\% |
| 67 | 0 | 36 | 0.00000 | 0.358\% | 0.358\% | 0.1 | 0.1 | 0\% | 0\% |
| 68 | 0 | 29 | 0.00000 | 0.394\% | 0.394\% | 0.1 | 0.1 | 0\% | 0\% |
| 69 | 0 | 23 | 0.00000 | 0.467\% | 0.467\% | 0.1 | 0.1 | 0\% | 0\% |
| 70 | 0 | 3 | 0.00000 | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 2 | 0.00000 | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Total | 15 | 16,300 |  |  |  | 18.1 | 18.1 | 83\% | 83\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA

ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS
MEN


NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA
ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

| Age | TABLE 8B GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual Deaths | Total <br> Exposed | Actual Rate (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 17 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 25-29 | 0 | 186 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 30-34 | 0 | 396 | 0.00000 | 0.022\% | 0.022\% | 0.1 | 0.1 | 0\% | 0\% |
| 35-39 | 0 | 600 | 0.00000 | 0.027\% | 0.027\% | 0.2 | 0.2 | 0\% | 0\% |
| 40-44 | 1 | 721 | 0.00139 | 0.040\% | 0.040\% | 0.3 | 0.3 | 346\% | 346\% |
| 45-49 | 0 | 668 | 0.00000 | 0.064\% | 0.064\% | 0.4 | 0.4 | 0\% | 0\% |
| 50-54 | 0 | 448 | 0.00000 | 0.089\% | 0.089\% | 0.4 | 0.4 | 0\% | 0\% |
| 55-59 | 1 | 331 | 0.00302 | 0.114\% | 0.114\% | 0.4 | 0.4 | 264\% | 264\% |
| 60-64 | 0 | 189 | 0.00000 | 0.138\% | 0.138\% | 0.3 | 0.3 | 0\% | 0\% |
| 65-69 | 0 | 40 | 0.00000 | 0.186\% | 0.186\% | 0.1 | 0.1 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 2 | 3,596 |  |  |  | 2.1 | 2.1 | 94\% | 94\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA
ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Age | TABLE 8C GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total Exposed | Actual Rate $\qquad$ | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 165 | 0.00000 | 0.038\% | 0.038\% | 0.1 | 0.1 | 0\% | 0\% |
| 25-29 | 0 | 857 | 0.00000 | 0.036\% | 0.036\% | 0.3 | 0.3 | 0\% | 0\% |
| 30-34 | 1 | 1,804 | 0.00055 | 0.040\% | 0.040\% | 0.7 | 0.7 | 140\% | 140\% |
| 35-39 | 2 | 2,446 | 0.00082 | 0.047\% | 0.047\% | 1.2 | 1.2 | 172\% | 172\% |
| 40-44 | 3 | 2,757 | 0.00109 | 0.070\% | 0.070\% | 1.9 | 1.9 | 156\% | 156\% |
| 45-49 | 0 | 2,926 | 0.00000 | 0.116\% | 0.116\% | 3.4 | 3.4 | 0\% | 0\% |
| 50-54 | 4 | 2,536 | 0.00158 | 0.163\% | 0.163\% | 4.1 | 4.1 | 97\% | 97\% |
| 55-59 | 4 | 1,747 | 0.00229 | 0.206\% | 0.206\% | 3.6 | 3.6 | 111\% | 111\% |
| 60-64 | 1 | 849 | 0.00118 | 0.245\% | 0.245\% | 2.1 | 2.1 | 48\% | 48\% |
| 65-69 | 0 | 208 | 0.00000 | 0.341\% | 0.341\% | 0.7 | 0.7 | 0\% | 0\% |
| 70-74 | 0 | 5 | 0.00000 | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 15 | 16,300 |  |  |  | 18.1 | 18.1 | 83\% | 83\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Plan <br> Year <br> Ending <br> June 30, | TABLE 8D <br> Life Years Exposed | Actual Deaths | Expected Deaths | 10-YEAR PERIOD ENDING 6/30/2013 Mortality Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / <br> Expected | Actual (3) / (2) | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 1,543 | 2 | 5.4 | 37\% | 0.130\% | 0.353\% |
| 2005 | 1,633 | 3 | 5.5 | 54\% | 0.184\% | 0.339\% |
| 2006 | 1,675 | 1 | 5.9 | 17\% | 0.060\% | 0.352\% |
| 2007 | 1,672 | 1 | 6.0 | 17\% | 0.060\% | 0.360\% |
| 2008 | 1,664 | 3 | 6.1 | 49\% | 0.180\% | 0.369\% |
| 2009 | 1,692 | 0 | 6.4 | 0\% | 0.000\% | 0.377\% |
| 2010 | 1,676 | 1 | 6.7 | 15\% | 0.060\% | 0.398\% |
| 2011 | 1,647 | 1 | 6.8 | 15\% | 0.061\% | 0.413\% |
| 2012 | 1,578 | 2 | 6.8 | 29\% | 0.127\% | 0.430\% |
| 2013 | 1,520 | 1 | 6.7 | 15\% | 0.066\% | 0.444\% |
| Total | 16,300 | 15 | 62.4 | $24 \%$ | 0.092\% | 0.383\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA ACCIDENTAL MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Age | TABLE 9A |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.010\% | 0.010\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.010\% | 0.010\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.010\% | 0.010\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 1 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 3 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 6 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 26 | 0 | 7 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 6 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 28 | 0 | 7 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 29 | 0 | 11 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 30 | 0 | 14 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 31 | 0 | 17 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 32 | 0 | 26 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 33 | 0 | 25 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 34 | 0 | 27 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 35 | 0 | 30 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 36 | 0 | 37 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 37 | 0 | 42 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 38 | 0 | 44 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 39 | 0 | 45 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 40 | 0 | 40 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 41 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 52 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 57 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 58 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 67 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 61 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 56 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 53 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 63 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 52 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 46 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 47 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 29 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 0 | 30 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 0 | 26 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 56 | 0 | 18 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 57 | 0 | 22 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 58 | 0 | 25 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 59 | 0 | 23 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 60 | 0 | 28 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 61 | 0 | 28 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 62 | 0 | 24 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 63 | 0 | 19 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 64 | 0 | 12 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 0 | 7 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 9 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 4 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 4 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 1 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Total | 0 | 1,350 |  |  |  | 0.1 | 0.1 | 0\% | 0\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA

## ACCIDENTAL MORTALITY EXPERIENCE OF ACTIVE MEMBERS

MEN AND WOMEN

| Age | TABLE 9A GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected <br> (7) / (3) | Proposed $(8) /(3)$ | Expected | Proposed | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 4 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 25-29 | 0 | 37 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 30-34 | 0 | 109 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 35-39 | 0 | 198 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 40-44 | 0 | 248 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 45-49 | 0 | 300 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 50-54 | 0 | 204 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 55-59 | 0 | 114 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 60-64 | 0 | 111 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 65-69 | 0 | 25 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 0 | 1,350 |  |  |  | 0.1 | 0.1 | 0\% | 0\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA ACCIDENTAL MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Age | TABLE 9A |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.010\% | 0.010\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 1 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 1 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 5 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 10 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 20 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 26 | 0 | 27 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 37 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 28 | 0 | 47 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 29 | 0 | 55 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 30 | 0 | 65 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 31 | 0 | 73 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 32 | 0 | 79 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 33 | 0 | 85 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 34 | 0 | 96 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 35 | 0 | 100 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 36 | 0 | 109 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 37 | 0 | 117 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 38 | 0 | 135 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 39 | 0 | 139 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 40 | 0 | 142 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 139 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 143 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 152 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 145 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 146 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 141 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 135 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 126 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 120 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 105 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 98 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 91 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 74 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 0 | 80 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 0 | 79 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 56 | 0 | 68 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 57 | 0 | 64 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 58 | 0 | 62 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 59 | 0 | 58 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 60 | 0 | 54 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 61 | 0 | 45 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 62 | 0 | 38 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 63 | 0 | 32 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 64 | 0 | 20 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 0 | 13 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 12 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 6 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 6 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 3 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 |  |  | 0.000\% | 0 | 0 | 0\% | 0\% |
| Total | 0 | 3,598 |  |  |  | 0.4 | 0.4 | 0\% | 0\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA

## ACCIDENTAL MORTALITY EXPERIENCE OF ACTIVE MEMBERS

MEN AND WOMEN

| Age | TABLE 9A GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 17 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 25-29 | 0 | 186 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 30-34 | 0 | 398 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 35-39 | 0 | 600 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 40-44 | 0 | 721 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 45-49 | 0 | 668 | 0.00000 | 0.010\% | 0.010\% | 0.1 | 0.1 | 0\% | 0\% |
| 50-54 | 0 | 448 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 55-59 | 0 | 331 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 60-64 | 0 | 189 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 65-69 | 0 | 40 | 0.00000 | 0.010\% | 0.010\% | 0.0 | 0.0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 0 | 3,598 |  |  |  | 0.4 | 0.4 | 0\% | 0\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA ACCIDENTAL MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Plan <br> Year <br> Ending <br> June 30, | TABLE 9B <br> Life Years <br> Exposed | Actual <br> Deaths | Expected Deaths | 10-YEAR PERIOD ENDING 6/30/2013 Mortality Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / <br> Expected | Actual (3) / (2) | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 1,543 | 0 | 0.6 | 0\% | 0.000\% | 0.041\% |
| 2005 | 1,633 | 0 | 0.6 | 0\% | 0.000\% | 0.039\% |
| 2006 | 1,675 | 0 | 0.7 | 0\% | 0.000\% | 0.040\% |
| 2007 | 1,672 | 0 | 0.7 | 0\% | 0.000\% | 0.041\% |
| 2008 | 1,664 | 0 | 0.7 | 0\% | 0.000\% | 0.042\% |
| 2009 | 1,692 | 0 | 0.7 | 0\% | 0.000\% | 0.043\% |
| 2010 | 1,676 | 0 | 0.8 | 0\% | 0.000\% | 0.045\% |
| 2011 | 1,647 | 0 | 0.8 | 0\% | 0.000\% | 0.046\% |
| 2012 | 1,578 | 0 | 0.8 | 0\% | 0.000\% | 0.048\% |
| 2013 | 1,520 | 0 | 0.8 | 0\% | 0.000\% | 0.050\% |
| Total | 16,300 | 0 | 7.1 | 0\% | 0.000\% | 0.044\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA
ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS
MEN

| Age | TABLE 10A |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Disabilities | Total Exposed <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \begin{array}{c} \text { (2) } /(\mathbf{3}) \\ \hline \end{array} \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ \text { (3) x (5) } \\ \hline \end{gathered}$ | Proposed $(3) \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.40\% | 0.40\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.40\% | 0.40\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.40\% | 0.40\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 0 | N/A | 0.40\% | 0.40\% | 0 | 0 | 0\% | 0\% |
| 24 | 0 | 0 | N/A | 0.40\% | 0.40\% | 0 | 0 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.40\% | 0.40\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 0 | N/A | 0.40\% | 0.40\% | 0 | 0 | 0\% | 0\% |
| 27 | 0 | 0 | N/A | 0.40\% | 0.40\% | 0 | 0 | 0\% | 0\% |
| 28 | 0 | 0 | N/A | 0.40\% | 0.40\% | 0 | 0 | 0\% | 0\% |
| 29 | 0 | 0 | N/A | 0.40\% | 0.40\% | 0 | 0 | 0\% | 0\% |
| 30 | 0 | 2 | 0.0000 | 0.40\% | 0.40\% | 0.0 | 0.0 | 0\% | 0\% |
| 31 | 0 | 7 | 0.0000 | 0.40\% | 0.40\% | 0.0 | 0.0 | 0\% | 0\% |
| 32 | 0 | 11 | 0.0000 | 0.40\% | 0.40\% | 0.0 | 0.0 | 0\% | 0\% |
| 33 | 0 | 13 | 0.0000 | 0.40\% | 0.40\% | 0.1 | 0.1 | 0\% | 0\% |
| 34 | 0 | 12 | 0.0000 | 0.40\% | 0.40\% | 0.0 | 0.0 | 0\% | 0\% |
| 35 | 0 | 22 | 0.0000 | 0.40\% | 0.40\% | 0.1 | 0.1 | 0\% | 0\% |
| 36 | 0 | 29 | 0.0000 | 0.40\% | 0.40\% | 0.1 | 0.1 | 0\% | 0\% |
| 37 | 0 | 37 | 0.0000 | 0.40\% | 0.40\% | 0.1 | 0.1 | 0\% | 0\% |
| 38 | 0 | 40 | 0.0000 | 0.40\% | 0.40\% | 0.2 | 0.2 | 0\% | 0\% |
| 39 | 0 | 53 | 0.0000 | 0.40\% | 0.40\% | 0.2 | 0.2 | 0\% | 0\% |
| 40 | 0 | 61 | 0.0000 | 0.40\% | 0.40\% | 0.2 | 0.2 | 0\% | 0\% |
| 41 | 1 | 66 | 0.0152 | 0.40\% | 0.40\% | 0.3 | 0.3 | 379\% | 379\% |
| 42 | 0 | 75 | 0.0000 | 0.40\% | 0.40\% | 0.3 | 0.3 | 0\% | 0\% |
| 43 | 0 | 80 | 0.0000 | 0.40\% | 0.40\% | 0.3 | 0.3 | 0\% | 0\% |
| 44 | 0 | 80 | 0.0000 | 0.40\% | 0.40\% | 0.3 | 0.3 | 0\% | 0\% |
| 45 | 1 | 91 | 0.0110 | 0.40\% | 0.40\% | 0.4 | 0.4 | 275\% | 275\% |
| 46 | 0 | 99 | 0.0000 | 0.40\% | 0.40\% | 0.4 | 0.4 | 0\% | 0\% |
| 47 | 0 | 98 | 0.0000 | 0.40\% | 0.40\% | 0.4 | 0.4 | 0\% | 0\% |
| 48 | 0 | 113 | 0.0000 | 0.40\% | 0.40\% | 0.5 | 0.5 | 0\% | 0\% |
| 49 | 0 | 116 | 0.0000 | 0.40\% | 0.40\% | 0.5 | 0.5 | 0\% | 0\% |
| 50 | 1 | 127 | 0.0079 | 0.40\% | 0.40\% | 0.5 | 0.5 | 197\% | 197\% |
| 51 | 1 | 124 | 0.0081 | 0.40\% | 0.40\% | 0.5 | 0.5 | 202\% | 202\% |
| 52 | 0 | 110 | 0.0000 | 0.40\% | 0.40\% | 0.4 | 0.4 | 0\% | 0\% |
| 53 | 0 | 120 | 0.0000 | 0.40\% | 0.40\% | 0.5 | 0.5 | 0\% | 0\% |
| 54 | 0 | 101 | 0.0000 | 0.40\% | 0.40\% | 0.4 | 0.4 | 0\% | 0\% |
| 55 | 0 | 99 | 0.0000 | 0.40\% | 0.40\% | 0.4 | 0.4 | 0\% | 0\% |
| 56 | 0 | 89 | 0.0000 | 0.40\% | 0.40\% | 0.4 | 0.4 | 0\% | 0\% |
| 57 | 1 | 75 | 0.0133 | 0.40\% | 0.40\% | 0.3 | 0.3 | 333\% | 333\% |
| 58 | 1 | 82 | 0.0122 | 0.40\% | 0.40\% | 0.3 | 0.3 | 305\% | 305\% |
| 59 | 0 | 64 | 0.0000 | 0.40\% | 0.40\% | 0.3 | 0.3 | 0\% | 0\% |
| 60 | 0 | 64 | 0.0000 | 0.40\% | 0.40\% | 0.3 | 0.3 | 0\% | 0\% |
| 61 | 0 | 55 | 0.0000 | 0.40\% | 0.40\% | 0.2 | 0.2 | 0\% | 0\% |
| 62 | 1 | 39 | 0.0256 | 0.40\% | 0.40\% | 0.2 | 0.2 | 641\% | 641\% |
| 63 | 1 | 25 | 0.0400 | 0.40\% | 0.40\% | 0.1 | 0.1 | 1000\% | 1000\% |
| 64 | 0 | 20 | 0.0000 | 0.40\% | 0.40\% | 0.1 | 0.1 | 0\% | 0\% |
| 65 | 0 | 15 | 0.0000 | 0.40\% | 0.40\% | 0.1 | 0.1 | 0\% | 0\% |
| 66 | 0 | 13 | 0.0000 | 0.40\% | 0.40\% | 0.1 | 0.1 | 0\% | 0\% |
| 67 | 0 | 7 | 0.0000 | 0.40\% | 0.40\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 10 | 0.0000 | 0.40\% | 0.40\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 5 | 0.0000 | 0.40\% | 0.40\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 8 | 2,349 |  |  |  | 9.4 | 9.4 | 85\% | 85\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

|  | TABLE 10B |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.04\% | 0.04\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.04\% | 0.04\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.04\% | 0.04\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 0 | N/A | 0.04\% | 0.04\% | 0 | 0 | 0\% | 0\% |
| 24 | 0 | 0 | N/A | 0.04\% | 0.04\% | 0 | 0 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.04\% | 0.04\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 0 | N/A | 0.04\% | 0.04\% | 0 | 0 | 0\% | 0\% |
| 27 | 0 | 0 | N/A | 0.04\% | 0.04\% | 0 | 0 | 0\% | 0\% |
| 28 | 0 | 0 | N/A | 0.04\% | 0.04\% | 0 | 0 | 0\% | 0\% |
| 29 | 0 | 0 | N/A | 0.04\% | 0.04\% | 0 | 0 | 0\% | 0\% |
| 30 | 0 | 0 | N/A | 0.05\% | 0.05\% | 0 | 0 | 0\% | 0\% |
| 31 | 0 | 1 | 0.0000 | 0.05\% | 0.05\% | 0.0 | 0.0 | 0\% | 0\% |
| 32 | 0 | 3 | 0.0000 | 0.05\% | 0.05\% | 0.0 | 0.0 | 0\% | 0\% |
| 33 | 0 | 0 | N/A | 0.05\% | 0.05\% | 0 | 0 | 0\% | 0\% |
| 34 | 0 | 4 | 0.0000 | 0.05\% | 0.05\% | 0.0 | 0.0 | 0\% | 0\% |
| 35 | 0 | 4 | 0.0000 | 0.06\% | 0.06\% | 0.0 | 0.0 | 0\% | 0\% |
| 36 | 0 | 5 | 0.0000 | 0.07\% | 0.07\% | 0.0 | 0.0 | 0\% | 0\% |
| 37 | 0 | 10 | 0.0000 | 0.09\% | 0.09\% | 0.0 | 0.0 | 0\% | 0\% |
| 38 | 0 | 10 | 0.0000 | 0.10\% | 0.10\% | 0.0 | 0.0 | 0\% | 0\% |
| 39 | 0 | 12 | 0.0000 | 0.12\% | 0.12\% | 0.0 | 0.0 | 0\% | 0\% |
| 40 | 0 | 21 | 0.0000 | 0.14\% | 0.14\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 28 | 0.0000 | 0.17\% | 0.17\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 36 | 0.0000 | 0.20\% | 0.20\% | 0.1 | 0.1 | 0\% | 0\% |
| 43 | 0 | 42 | 0.0000 | 0.23\% | 0.23\% | 0.1 | 0.1 | 0\% | 0\% |
| 44 | 0 | 39 | 0.0000 | 0.26\% | 0.26\% | 0.1 | 0.1 | 0\% | 0\% |
| 45 | 0 | 33 | 0.0000 | 0.30\% | 0.30\% | 0.1 | 0.1 | 0\% | 0\% |
| 46 | 0 | 25 | 0.0000 | 0.33\% | 0.33\% | 0.1 | 0.1 | 0\% | 0\% |
| 47 | 0 | 32 | 0.0000 | 0.36\% | 0.36\% | 0.1 | 0.1 | 0\% | 0\% |
| 48 | 0 | 27 | 0.0000 | 0.39\% | 0.39\% | 0.1 | 0.1 | 0\% | 0\% |
| 49 | 0 | 32 | 0.0000 | 0.42\% | 0.42\% | 0.1 | 0.1 | 0\% | 0\% |
| 50 | 0 | 37 | 0.0000 | 0.45\% | 0.45\% | 0.2 | 0.2 | 0\% | 0\% |
| 51 | 1 | 24 | 0.0417 | 0.46\% | 0.46\% | 0.1 | 0.1 | 906\% | 906\% |
| 52 | 0 | 23 | 0.0000 | 0.47\% | 0.47\% | 0.1 | 0.1 | 0\% | 0\% |
| 53 | 0 | 24 | 0.0000 | 0.49\% | 0.49\% | 0.1 | 0.1 | 0\% | 0\% |
| 54 | 0 | 15 | 0.0000 | 0.50\% | 0.50\% | 0.1 | 0.1 | 0\% | 0\% |
| 55 | 0 | 17 | 0.0000 | 0.50\% | 0.50\% | 0.1 | 0.1 | 0\% | 0\% |
| 56 | 0 | 15 | 0.0000 | 0.50\% | 0.50\% | 0.1 | 0.1 | 0\% | 0\% |
| 57 | 0 | 17 | 0.0000 | 0.50\% | 0.50\% | 0.1 | 0.1 | 0\% | 0\% |
| 58 | 0 | 23 | 0.0000 | 0.50\% | 0.50\% | 0.1 | 0.1 | 0\% | 0\% |
| 59 | 0 | 24 | 0.0000 | 0.50\% | 0.50\% | 0.1 | 0.1 | 0\% | 0\% |
| 60 | 0 | 23 | 0.0000 | 0.50\% | 0.50\% | 0.1 | 0.1 | 0\% | 0\% |
| 61 | 0 | 24 | 0.0000 | 0.50\% | 0.50\% | 0.1 | 0.1 | 0\% | 0\% |
| 62 | 0 | 15 | 0.0000 | 0.50\% | 0.50\% | 0.1 | 0.1 | 0\% | 0\% |
| 63 | 0 | 7 | 0.0000 | 0.50\% | 0.50\% | 0.0 | 0.0 | 0\% | 0\% |
| 64 | 0 | 8 | 0.0000 | 0.50\% | 0.50\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 0 | 6 | 0.0000 | 0.50\% | 0.50\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 5 | 0.0000 | 0.50\% | 0.50\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 3 | 0.0000 | 0.50\% | 0.50\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.50\% | 0.50\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 1 | 674 |  |  |  | 2.4 | 2.4 | 41\% | 41\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

|  | TABLE 10C |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{aligned} & \text { Expected } \\ & (3) \times(5) \\ & \hline \end{aligned}$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 24 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 27 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 28 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 29 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 30 | 0 | 2 | 0.0000 | 0.40\% | 0.40\% | 0.0 | 0.0 | 0\% | 0\% |
| 31 | 0 | 8 | 0.0000 | 0.36\% | 0.36\% | 0.0 | 0.0 | 0\% | 0\% |
| 32 | 0 | 14 | 0.0000 | 0.33\% | 0.33\% | 0.0 | 0.0 | 0\% | 0\% |
| 33 | 0 | 13 | 0.0000 | 0.40\% | 0.40\% | 0.1 | 0.1 | 0\% | 0\% |
| 34 | 0 | 16 | 0.0000 | 0.31\% | 0.31\% | 0.1 | 0.1 | 0\% | 0\% |
| 35 | 0 | 26 | 0.0000 | 0.35\% | 0.35\% | 0.1 | 0.1 | 0\% | 0\% |
| 36 | 0 | 34 | 0.0000 | 0.35\% | 0.35\% | 0.1 | 0.1 | 0\% | 0\% |
| 37 | 0 | 47 | 0.0000 | 0.33\% | 0.33\% | 0.2 | 0.2 | 0\% | 0\% |
| 38 | 0 | 50 | 0.0000 | 0.34\% | 0.34\% | 0.2 | 0.2 | 0\% | 0\% |
| 39 | 0 | 65 | 0.0000 | 0.35\% | 0.35\% | 0.2 | 0.2 | 0\% | 0\% |
| 40 | 0 | 82 | 0.0000 | 0.33\% | 0.33\% | 0.3 | 0.3 | 0\% | 0\% |
| 41 | 1 | 94 | 0.0106 | 0.33\% | 0.33\% | 0.3 | 0.3 | 321\% | 321\% |
| 42 | 0 | 111 | 0.0000 | 0.34\% | 0.34\% | 0.4 | 0.4 | 0\% | 0\% |
| 43 | 0 | 122 | 0.0000 | 0.34\% | 0.34\% | 0.4 | 0.4 | 0\% | 0\% |
| 44 | 0 | 119 | 0.0000 | 0.35\% | 0.35\% | 0.4 | 0.4 | 0\% | 0\% |
| 45 | 1 | 124 | 0.0081 | 0.37\% | 0.37\% | 0.5 | 0.5 | 216\% | 216\% |
| 46 | 0 | 124 | 0.0000 | 0.39\% | 0.39\% | 0.5 | 0.5 | 0\% | 0\% |
| 47 | 0 | 130 | 0.0000 | 0.39\% | 0.39\% | 0.5 | 0.5 | 0\% | 0\% |
| 48 | 0 | 140 | 0.0000 | 0.40\% | 0.40\% | 0.6 | 0.6 | 0\% | 0\% |
| 49 | 0 | 148 | 0.0000 | 0.40\% | 0.40\% | 0.6 | 0.6 | 0\% | 0\% |
| 50 | 1 | 164 | 0.0061 | 0.41\% | 0.41\% | 0.7 | 0.7 | 148\% | 148\% |
| 51 | 2 | 148 | 0.0135 | 0.41\% | 0.41\% | 0.6 | 0.6 | 330\% | 330\% |
| 52 | 0 | 133 | 0.0000 | 0.41\% | 0.41\% | 0.5 | 0.5 | 0\% | 0\% |
| 53 | 0 | 144 | 0.0000 | 0.42\% | 0.42\% | 0.6 | 0.6 | 0\% | 0\% |
| 54 | 0 | 116 | 0.0000 | 0.41\% | 0.41\% | 0.5 | 0.5 | 0\% | 0\% |
| 55 | 0 | 116 | 0.0000 | 0.41\% | 0.41\% | 0.5 | 0.5 | 0\% | 0\% |
| 56 | 0 | 104 | 0.0000 | 0.41\% | 0.41\% | 0.4 | 0.4 | 0\% | 0\% |
| 57 | 1 | 92 | 0.0109 | 0.42\% | 0.42\% | 0.4 | 0.4 | 260\% | 260\% |
| 58 | 1 | 105 | 0.0095 | 0.42\% | 0.42\% | 0.4 | 0.4 | 226\% | 226\% |
| 59 | 0 | 88 | 0.0000 | 0.43\% | 0.43\% | 0.4 | 0.4 | 0\% | 0\% |
| 60 | 0 | 87 | 0.0000 | 0.43\% | 0.43\% | 0.4 | 0.4 | 0\% | 0\% |
| 61 | 0 | 79 | 0.0000 | 0.43\% | 0.43\% | 0.3 | 0.3 | 0\% | 0\% |
| 62 | 1 | 54 | 0.0185 | 0.43\% | 0.43\% | 0.2 | 0.2 | 433\% | 433\% |
| 63 | 1 | 32 | 0.0313 | 0.42\% | 0.42\% | 0.1 | 0.1 | 741\% | 741\% |
| 64 | 0 | 28 | 0.0000 | 0.43\% | 0.43\% | 0.1 | 0.1 | 0\% | 0\% |
| 65 | 0 | 21 | 0.0000 | 0.43\% | 0.43\% | 0.1 | 0.1 | 0\% | 0\% |
| 66 | 0 | 18 | 0.0000 | 0.43\% | 0.43\% | 0.1 | 0.1 | 0\% | 0\% |
| 67 | 0 | 10 | 0.0000 | 0.43\% | 0.43\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 10 | 0.0000 | 0.40\% | 0.40\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 5 | 0.0000 | 0.40\% | 0.40\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 9 | 3,023 |  |  |  | 11.8 | 11.8 | 76\% | 76\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA
ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN

|  | TABLE 10A GROUPED |  |  | Assumed Probability $\quad \begin{gathered}\text { 4-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered} \quad$ Actual/Expected |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | $\begin{gathered} \text { Proposed } \\ (8) /(3) \\ \hline \end{gathered}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 25-29 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 30-34 | 0 | 45 | 0.0000 | 0.40\% | 0.40\% | 0.2 | 0.2 | 0\% | 0\% |
| 35-39 | 0 | 181 | 0.0000 | 0.40\% | 0.40\% | 0.7 | 0.7 | 0\% | 0\% |
| 40-44 | 1 | 362 | 0.0028 | 0.40\% | 0.40\% | 1.4 | 1.4 | 69\% | 69\% |
| 45-49 | 1 | 517 | 0.0019 | 0.40\% | 0.40\% | 2.1 | 2.1 | 48\% | 48\% |
| 50-54 | 2 | 582 | 0.0034 | 0.40\% | 0.40\% | 2.3 | 2.3 | 86\% | 86\% |
| 55-59 | 2 | 409 | 0.0049 | 0.40\% | 0.40\% | 1.6 | 1.6 | 122\% | 122\% |
| 60-64 | 2 | 203 | 0.0099 | 0.40\% | 0.40\% | 0.8 | 0.8 | 246\% | 246\% |
| 65-69 | 0 | 50 | 0.0000 | 0.40\% | 0.40\% | 0.2 | 0.2 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 8 | 2,349 |  |  |  | 9.4 | 9.4 | 85\% | 85\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA

ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

|  | TABLE 10B GROUPED |  |  | Astar $\begin{gathered}\text { 4-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | Actual Rate $(2) /(3)$ | Expected <br> (7) / (3) | Proposed $(8) /(3)$ | Expected | Proposed | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 25-29 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 30-34 | 0 | 8 | 0.0000 | 0.05\% | 0.05\% | 0.0 | 0.0 | 0\% | 0\% |
| 35-39 | 0 | 41 | 0.0000 | 0.10\% | 0.10\% | 0.0 | 0.0 | 0\% | 0\% |
| 40-44 | 0 | 166 | 0.0000 | 0.21\% | 0.21\% | 0.3 | 0.3 | 0\% | 0\% |
| 45-49 | 0 | 149 | 0.0000 | 0.36\% | 0.36\% | 0.5 | 0.5 | 0\% | 0\% |
| 50-54 | 1 | 123 | 0.0081 | 0.47\% | 0.47\% | 0.6 | 0.6 | 173\% | 173\% |
| 55-59 | 0 | 96 | 0.0000 | 0.50\% | 0.50\% | 0.5 | 0.5 | 0\% | 0\% |
| 60-64 | 0 | 77 | 0.0000 | 0.50\% | 0.50\% | 0.4 | 0.4 | 0\% | 0\% |
| 65-69 | 0 | 14 | 0.0000 | 0.50\% | 0.50\% | 0.1 | 0.1 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 1 | 674 |  |  |  | 2.4 | 2.4 | 41\% | 41\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA

## ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS

 MEN AND WOMEN| Age | TABLE 10C GROUPED |  |  | $\begin{array}{lcc} & \text { 4-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Assumed Probability } & \text { Expected Disabilities }\end{array}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2)/(3) } \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | Proposed (8) / (3) | Expected | Proposed | Expected $(2) /(7)$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 25-29 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 30-34 | 0 | 53 | 0.0000 | 0.35\% | 0.35\% | 0.2 | 0.2 | 0\% | 0\% |
| 35-39 | 0 | 222 | 0.0000 | 0.34\% | 0.34\% | 0.8 | 0.8 | 0\% | 0\% |
| 40-44 | 1 | 528 | 0.0019 | 0.34\% | 0.34\% | 1.8 | 1.8 | 56\% | 56\% |
| 45-49 | 1 | 666 | 0.0015 | 0.39\% | 0.39\% | 2.6 | 2.6 | 38\% | 38\% |
| 50-54 | 3 | 705 | 0.0043 | 0.41\% | 0.41\% | 2.9 | 2.9 | 103\% | 103\% |
| 55-59 | 2 | 505 | 0.0040 | 0.42\% | 0.42\% | 2.1 | 2.1 | 95\% | 95\% |
| 60-64 | 2 | 280 | 0.0071 | 0.43\% | 0.43\% | 1.2 | 1.2 | 167\% | 167\% |
| 65-69 | 0 | 64 | 0.0000 | 0.42\% | 0.42\% | 0.3 | 0.3 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 9 | 3,023 |  |  |  | 11.8 | 11.8 | 76\% | 76\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN

| Age | TABLE 10A |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | Proposed $(3) \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.40\% | 0.40\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.40\% | 0.40\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.40\% | 0.40\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 0 | N/A | 0.40\% | 0.40\% | 0 | 0 | 0\% | 0\% |
| 24 | 0 | 0 | N/A | 0.40\% | 0.40\% | 0 | 0 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.40\% | 0.40\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 0 | N/A | 0.40\% | 0.40\% | 0 | 0 | 0\% | 0\% |
| 27 | 0 | 0 | N/A | 0.40\% | 0.40\% | 0 | 0 | 0\% | 0\% |
| 28 | 0 | 0 | N/A | 0.40\% | 0.40\% | 0 | 0 | 0\% | 0\% |
| 29 | 0 | 0 | N/A | 0.40\% | 0.40\% | 0 | 0 | 0\% | 0\% |
| 30 | 0 | 3 | 0.0000 | 0.40\% | 0.40\% | 0.0 | 0.0 | 0\% | 0\% |
| 31 | 0 | 8 | 0.0000 | 0.40\% | 0.40\% | 0.0 | 0.0 | 0\% | 0\% |
| 32 | 0 | 15 | 0.0000 | 0.40\% | 0.40\% | 0.1 | 0.1 | 0\% | 0\% |
| 33 | 0 | 21 | 0.0000 | 0.40\% | 0.40\% | 0.1 | 0.1 | 0\% | 0\% |
| 34 | 0 | 27 | 0.0000 | 0.40\% | 0.40\% | 0.1 | 0.1 | 0\% | 0\% |
| 35 | 0 | 42 | 0.0000 | 0.40\% | 0.40\% | 0.2 | 0.2 | 0\% | 0\% |
| 36 | 0 | 61 | 0.0000 | 0.40\% | 0.40\% | 0.2 | 0.2 | 0\% | 0\% |
| 37 | 0 | 79 | 0.0000 | 0.40\% | 0.40\% | 0.3 | 0.3 | 0\% | 0\% |
| 38 | 0 | 91 | 0.0000 | 0.40\% | 0.40\% | 0.4 | 0.4 | 0\% | 0\% |
| 39 | 0 | 118 | 0.0000 | 0.40\% | 0.40\% | 0.5 | 0.5 | 0\% | 0\% |
| 40 | 0 | 129 | 0.0000 | 0.40\% | 0.40\% | 0.5 | 0.5 | 0\% | 0\% |
| 41 | 2 | 153 | 0.0131 | 0.40\% | 0.40\% | 0.6 | 0.6 | 327\% | 327\% |
| 42 | 0 | 165 | 0.0000 | 0.40\% | 0.40\% | 0.7 | 0.7 | 0\% | 0\% |
| 43 | 0 | 169 | 0.0000 | 0.40\% | 0.40\% | 0.7 | 0.7 | 0\% | 0\% |
| 44 | 2 | 179 | 0.0112 | 0.40\% | 0.40\% | 0.7 | 0.7 | 279\% | 279\% |
| 45 | 1 | 188 | 0.0053 | 0.40\% | 0.40\% | 0.8 | 0.8 | 133\% | 133\% |
| 46 | 1 | 203 | 0.0049 | 0.40\% | 0.40\% | 0.8 | 0.8 | 123\% | 123\% |
| 47 | 1 | 214 | 0.0047 | 0.40\% | 0.40\% | 0.9 | 0.9 | 117\% | 117\% |
| 48 | 0 | 235 | 0.0000 | 0.40\% | 0.40\% | 0.9 | 0.9 | 0\% | 0\% |
| 49 | 0 | 252 | 0.0000 | 0.40\% | 0.40\% | 1.0 | 1.0 | 0\% | 0\% |
| 50 | 1 | 266 | 0.0038 | 0.40\% | 0.40\% | 1.1 | 1.1 | 94\% | 94\% |
| 51 | 2 | 252 | 0.0079 | 0.40\% | 0.40\% | 1.0 | 1.0 | 198\% | 198\% |
| 52 | 2 | 240 | 0.0083 | 0.40\% | 0.40\% | 1.0 | 1.0 | 208\% | 208\% |
| 53 | 1 | 229 | 0.0044 | 0.40\% | 0.40\% | 0.9 | 0.9 | 109\% | 109\% |
| 54 | 0 | 215 | 0.0000 | 0.40\% | 0.40\% | 0.9 | 0.9 | 0\% | 0\% |
| 55 | 0 | 204 | 0.0000 | 0.40\% | 0.40\% | 0.8 | 0.8 | 0\% | 0\% |
| 56 | 1 | 187 | 0.0053 | 0.40\% | 0.40\% | 0.7 | 0.7 | 134\% | 134\% |
| 57 | 2 | 162 | 0.0123 | 0.40\% | 0.40\% | 0.6 | 0.6 | 309\% | 309\% |
| 58 | 1 | 139 | 0.0072 | 0.40\% | 0.40\% | 0.6 | 0.6 | 180\% | 180\% |
| 59 | 0 | 106 | 0.0000 | 0.40\% | 0.40\% | 0.4 | 0.4 | 0\% | 0\% |
| 60 | 0 | 94 | 0.0000 | 0.40\% | 0.40\% | 0.4 | 0.4 | 0\% | 0\% |
| 61 | 0 | 84 | 0.0000 | 0.40\% | 0.40\% | 0.3 | 0.3 | 0\% | 0\% |
| 62 | 2 | 64 | 0.0313 | 0.40\% | 0.40\% | 0.3 | 0.3 | 781\% | 781\% |
| 63 | 1 | 45 | 0.0222 | 0.40\% | 0.40\% | 0.2 | 0.2 | 556\% | 556\% |
| 64 | 0 | 36 | 0.0000 | 0.40\% | 0.40\% | 0.1 | 0.1 | 0\% | 0\% |
| 65 | 0 | 26 | 0.0000 | 0.40\% | 0.40\% | 0.1 | 0.1 | 0\% | 0\% |
| 66 | 0 | 20 | 0.0000 | 0.40\% | 0.40\% | 0.1 | 0.1 | 0\% | 0\% |
| 67 | 0 | 15 | 0.0000 | 0.40\% | 0.40\% | 0.1 | 0.1 | 0\% | 0\% |
| 68 | 0 | 15 | 0.0000 | 0.40\% | 0.40\% | 0.1 | 0.1 | 0\% | 0\% |
| 69 | 0 | 10 | 0.0000 | 0.40\% | 0.40\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 20 | 4,761 |  |  |  | 19.0 | 19.0 | 105\% | 105\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

|  | TABLE 10B |  |  | Assumed | bability | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.04\% | 0.04\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.04\% | 0.04\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.04\% | 0.04\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 0 | N/A | 0.04\% | 0.04\% | 0 | 0 | 0\% | 0\% |
| 24 | 0 | 0 | N/A | 0.04\% | 0.04\% | 0 | 0 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.04\% | 0.04\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 0 | N/A | 0.04\% | 0.04\% | 0 | 0 | 0\% | 0\% |
| 27 | 0 | 0 | N/A | 0.04\% | 0.04\% | 0 | 0 | 0\% | 0\% |
| 28 | 0 | 0 | N/A | 0.04\% | 0.04\% | 0 | 0 | 0\% | 0\% |
| 29 | 0 | 0 | N/A | 0.04\% | 0.04\% | 0 | 0 | 0\% | 0\% |
| 30 | 0 | 0 | N/A | 0.05\% | 0.05\% | 0 | 0 | 0\% | 0\% |
| 31 | 0 | 1 | 0.0000 | 0.05\% | 0.05\% | 0.0 | 0.0 | 0\% | 0\% |
| 32 | 0 | 3 | 0.0000 | 0.05\% | 0.05\% | 0.0 | 0.0 | 0\% | 0\% |
| 33 | 0 | 0 | N/A | 0.05\% | 0.05\% | 0 | 0 | 0\% | 0\% |
| 34 | 0 | 5 | 0.0000 | 0.05\% | 0.05\% | 0.0 | 0.0 | 0\% | 0\% |
| 35 | 0 | 8 | 0.0000 | 0.06\% | 0.06\% | 0.0 | 0.0 | 0\% | 0\% |
| 36 | 0 | 12 | 0.0000 | 0.07\% | 0.07\% | 0.0 | 0.0 | 0\% | 0\% |
| 37 | 0 | 28 | 0.0000 | 0.09\% | 0.09\% | 0.0 | 0.0 | 0\% | 0\% |
| 38 | 0 | 35 | 0.0000 | 0.10\% | 0.10\% | 0.0 | 0.0 | 0\% | 0\% |
| 39 | 0 | 43 | 0.0000 | 0.12\% | 0.12\% | 0.1 | 0.1 | 0\% | 0\% |
| 40 | 0 | 53 | 0.0000 | 0.14\% | 0.14\% | 0.1 | 0.1 | 0\% | 0\% |
| 41 | 0 | 53 | 0.0000 | 0.17\% | 0.17\% | 0.1 | 0.1 | 0\% | 0\% |
| 42 | 0 | 56 | 0.0000 | 0.20\% | 0.20\% | 0.1 | 0.1 | 0\% | 0\% |
| 43 | 0 | 64 | 0.0000 | 0.23\% | 0.23\% | 0.1 | 0.1 | 0\% | 0\% |
| 44 | 0 | 60 | 0.0000 | 0.26\% | 0.26\% | 0.2 | 0.2 | 0\% | 0\% |
| 45 | 1 | 54 | 0.0185 | 0.30\% | 0.30\% | 0.2 | 0.2 | 617\% | 617\% |
| 46 | 0 | 53 | 0.0000 | 0.33\% | 0.33\% | 0.2 | 0.2 | 0\% | 0\% |
| 47 | 0 | 59 | 0.0000 | 0.36\% | 0.36\% | 0.2 | 0.2 | 0\% | 0\% |
| 48 | 0 | 52 | 0.0000 | 0.39\% | 0.39\% | 0.2 | 0.2 | 0\% | 0\% |
| 49 | 1 | 58 | 0.0172 | 0.42\% | 0.42\% | 0.2 | 0.2 | 411\% | 411\% |
| 50 | 0 | 54 | 0.0000 | 0.45\% | 0.45\% | 0.2 | 0.2 | 0\% | 0\% |
| 51 | 1 | 39 | 0.0256 | 0.46\% | 0.46\% | 0.2 | 0.2 | 557\% | 557\% |
| 52 | 0 | 41 | 0.0000 | 0.47\% | 0.47\% | 0.2 | 0.2 | 0\% | 0\% |
| 53 | 0 | 44 | 0.0000 | 0.49\% | 0.49\% | 0.2 | 0.2 | 0\% | 0\% |
| 54 | 0 | 38 | 0.0000 | 0.50\% | 0.50\% | 0.2 | 0.2 | 0\% | 0\% |
| 55 | 0 | 42 | 0.0000 | 0.50\% | 0.50\% | 0.2 | 0.2 | 0\% | 0\% |
| 56 | 0 | 37 | 0.0000 | 0.50\% | 0.50\% | 0.2 | 0.2 | 0\% | 0\% |
| 57 | 0 | 40 | 0.0000 | 0.50\% | 0.50\% | 0.2 | 0.2 | 0\% | 0\% |
| 58 | 1 | 38 | 0.0263 | 0.50\% | 0.50\% | 0.2 | 0.2 | 526\% | 526\% |
| 59 | 0 | 33 | 0.0000 | 0.50\% | 0.50\% | 0.2 | 0.2 | 0\% | 0\% |
| 60 | 0 | 30 | 0.0000 | 0.50\% | 0.50\% | 0.2 | 0.2 | 0\% | 0\% |
| 61 | 0 | 30 | 0.0000 | 0.50\% | 0.50\% | 0.2 | 0.2 | 0\% | 0\% |
| 62 | 0 | 19 | 0.0000 | 0.50\% | 0.50\% | 0.1 | 0.1 | 0\% | 0\% |
| 63 | 0 | 12 | 0.0000 | 0.50\% | 0.50\% | 0.1 | 0.1 | 0\% | 0\% |
| 64 | 0 | 10 | 0.0000 | 0.50\% | 0.50\% | 0.1 | 0.1 | 0\% | 0\% |
| 65 | 1 | 8 | 0.1250 | 0.50\% | 0.50\% | 0.0 | 0.0 | 2500\% | 2500\% |
| 66 | 0 | 6 | 0.0000 | 0.50\% | 0.50\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 4 | 0.0000 | 0.50\% | 0.50\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 1 | 0.0000 | 0.50\% | 0.50\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 1 | 0.0000 | 0.50\% | 0.50\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 5 | 1,224 |  |  |  | 4.3 | 4.3 | 117\% | 117\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

|  | TABLE 10C |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 24 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 27 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 28 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 29 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 30 | 0 | 3 | 0.0000 | 0.40\% | 0.40\% | 0.0 | 0.0 | 0\% | 0\% |
| 31 | 0 | 9 | 0.0000 | 0.36\% | 0.36\% | 0.0 | 0.0 | 0\% | 0\% |
| 32 | 0 | 18 | 0.0000 | 0.34\% | 0.34\% | 0.1 | 0.1 | 0\% | 0\% |
| 33 | 0 | 21 | 0.0000 | 0.40\% | 0.40\% | 0.1 | 0.1 | 0\% | 0\% |
| 34 | 0 | 32 | 0.0000 | 0.35\% | 0.35\% | 0.1 | 0.1 | 0\% | 0\% |
| 35 | 0 | 50 | 0.0000 | 0.35\% | 0.35\% | 0.2 | 0.2 | 0\% | 0\% |
| 36 | 0 | 73 | 0.0000 | 0.35\% | 0.35\% | 0.3 | 0.3 | 0\% | 0\% |
| 37 | 0 | 107 | 0.0000 | 0.32\% | 0.32\% | 0.3 | 0.3 | 0\% | 0\% |
| 38 | 0 | 126 | 0.0000 | 0.32\% | 0.32\% | 0.4 | 0.4 | 0\% | 0\% |
| 39 | 0 | 161 | 0.0000 | 0.33\% | 0.33\% | 0.5 | 0.5 | 0\% | 0\% |
| 40 | 0 | 182 | 0.0000 | 0.32\% | 0.32\% | 0.6 | 0.6 | 0\% | 0\% |
| 41 | 2 | 206 | 0.0097 | 0.34\% | 0.34\% | 0.7 | 0.7 | 285\% | 285\% |
| 42 | 0 | 221 | 0.0000 | 0.35\% | 0.35\% | 0.8 | 0.8 | 0\% | 0\% |
| 43 | 0 | 233 | 0.0000 | 0.35\% | 0.35\% | 0.8 | 0.8 | 0\% | 0\% |
| 44 | 2 | 239 | 0.0084 | 0.36\% | 0.36\% | 0.9 | 0.9 | 229\% | 229\% |
| 45 | 2 | 242 | 0.0083 | 0.38\% | 0.38\% | 0.9 | 0.9 | 219\% | 219\% |
| 46 | 1 | 256 | 0.0039 | 0.39\% | 0.39\% | 1.0 | 1.0 | 101\% | 101\% |
| 47 | 1 | 273 | 0.0037 | 0.39\% | 0.39\% | 1.1 | 1.1 | 94\% | 94\% |
| 48 | 0 | 287 | 0.0000 | 0.40\% | 0.40\% | 1.1 | 1.1 | 0\% | 0\% |
| 49 | 1 | 310 | 0.0032 | 0.40\% | 0.40\% | 1.3 | 1.3 | 80\% | 80\% |
| 50 | 1 | 320 | 0.0031 | 0.41\% | 0.41\% | 1.3 | 1.3 | 77\% | 77\% |
| 51 | 3 | 291 | 0.0103 | 0.41\% | 0.41\% | 1.2 | 1.2 | 253\% | 253\% |
| 52 | 2 | 281 | 0.0071 | 0.41\% | 0.41\% | 1.2 | 1.2 | 174\% | 174\% |
| 53 | 1 | 273 | 0.0037 | 0.41\% | 0.41\% | 1.1 | 1.1 | 88\% | 88\% |
| 54 | 0 | 253 | 0.0000 | 0.42\% | 0.42\% | 1.1 | 1.1 | 0\% | 0\% |
| 55 | 0 | 246 | 0.0000 | 0.42\% | 0.42\% | 1.0 | 1.0 | 0\% | 0\% |
| 56 | 1 | 224 | 0.0045 | 0.42\% | 0.42\% | 0.9 | 0.9 | 107\% | 107\% |
| 57 | 2 | 202 | 0.0099 | 0.42\% | 0.42\% | 0.8 | 0.8 | 236\% | 236\% |
| 58 | 2 | 177 | 0.0113 | 0.42\% | 0.42\% | 0.7 | 0.7 | 268\% | 268\% |
| 59 | 0 | 139 | 0.0000 | 0.42\% | 0.42\% | 0.6 | 0.6 | 0\% | 0\% |
| 60 | 0 | 124 | 0.0000 | 0.42\% | 0.42\% | 0.5 | 0.5 | 0\% | 0\% |
| 61 | 0 | 114 | 0.0000 | 0.43\% | 0.43\% | 0.5 | 0.5 | 0\% | 0\% |
| 62 | 2 | 83 | 0.0241 | 0.42\% | 0.42\% | 0.4 | 0.4 | 570\% | 570\% |
| 63 | 1 | 57 | 0.0175 | 0.42\% | 0.42\% | 0.2 | 0.2 | 417\% | 417\% |
| 64 | 0 | 46 | 0.0000 | 0.42\% | 0.42\% | 0.2 | 0.2 | 0\% | 0\% |
| 65 | 1 | 34 | 0.0294 | 0.42\% | 0.42\% | 0.1 | 0.1 | 694\% | 694\% |
| 66 | 0 | 26 | 0.0000 | 0.42\% | 0.42\% | 0.1 | 0.1 | 0\% | 0\% |
| 67 | 0 | 19 | 0.0000 | 0.42\% | 0.42\% | 0.1 | 0.1 | 0\% | 0\% |
| 68 | 0 | 16 | 0.0000 | 0.41\% | 0.41\% | 0.1 | 0.1 | 0\% | 0\% |
| 69 | 0 | 11 | 0.0000 | 0.41\% | 0.41\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 25 | 5,985 |  |  |  | 23.3 | 23.3 | 107\% | 107\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA
ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN

|  | TABLE 10A GROUPED |  |  | Assumed Probability $\quad \begin{gathered}\text { 8-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered} \quad$ Actual/Expected |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | $\begin{gathered} \text { Proposed } \\ (8) /(3) \\ \hline \end{gathered}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 25-29 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 30-34 | 0 | 74 | 0.0000 | 0.40\% | 0.40\% | 0.3 | 0.3 | 0\% | 0\% |
| 35-39 | 0 | 391 | 0.0000 | 0.40\% | 0.40\% | 1.6 | 1.6 | 0\% | 0\% |
| 40-44 | 4 | 795 | 0.0050 | 0.40\% | 0.40\% | 3.2 | 3.2 | 126\% | 126\% |
| 45-49 | 3 | 1,092 | 0.0027 | 0.40\% | 0.40\% | 4.4 | 4.4 | 69\% | 69\% |
| 50-54 | 6 | 1,202 | 0.0050 | 0.40\% | 0.40\% | 4.8 | 4.8 | 125\% | 125\% |
| 55-59 | 4 | 798 | 0.0050 | 0.40\% | 0.40\% | 3.2 | 3.2 | 125\% | 125\% |
| 60-64 | 3 | 323 | 0.0093 | 0.40\% | 0.40\% | 1.3 | 1.3 | 232\% | 232\% |
| 65-69 | 0 | 86 | 0.0000 | 0.40\% | 0.40\% | 0.3 | 0.3 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 20 | 4,761 |  |  |  | 19.0 | 19.0 | 105\% | 105\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA

## ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS

 WOMEN|  | TABLE 10B GROUPED |  |  | Assumed Probability $\quad \begin{gathered}\text { 8-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | Actual Rate $(2) /(3)$ | Expected <br> (7) / (3) | Proposed $(8) /(3)$ | Expected | Proposed | Expected $(2) /(7)$ | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 25-29 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 30-34 | 0 | 9 | 0.0000 | 0.05\% | 0.05\% | 0.0 | 0.0 | 0\% | 0\% |
| 35-39 | 0 | 126 | 0.0000 | 0.10\% | 0.10\% | 0.1 | 0.1 | 0\% | 0\% |
| 40-44 | 0 | 286 | 0.0000 | 0.20\% | 0.20\% | 0.6 | 0.6 | 0\% | 0\% |
| 45-49 | 2 | 276 | 0.0072 | 0.36\% | 0.36\% | 1.0 | 1.0 | 201\% | 201\% |
| 50-54 | 1 | 216 | 0.0046 | 0.47\% | 0.47\% | 1.0 | 1.0 | 98\% | 98\% |
| 55-59 | 1 | 190 | 0.0053 | 0.50\% | 0.50\% | 1.0 | 1.0 | 105\% | 105\% |
| 60-64 | 0 | 101 | 0.0000 | 0.50\% | 0.50\% | 0.5 | 0.5 | 0\% | 0\% |
| 65-69 | 1 | 20 | 0.0500 | 0.50\% | 0.50\% | 0.1 | 0.1 | 1000\% | 1000\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 5 | 1,224 |  |  |  | 4.3 | 4.3 | 117\% | 117\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA
ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Age | TABLE 10C GROUPED |  |  | Assumed Probability |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Disabilities | Total Exposed | Actual Rate $(2) /(3)$ | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 25-29 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 30-34 | 0 | 83 | 0.0000 | 0.36\% | 0.36\% | 0.3 | 0.3 | 0\% | 0\% |
| 35-39 | 0 | 517 | 0.0000 | 0.33\% | 0.33\% | 1.7 | 1.7 | 0\% | 0\% |
| 40-44 | 4 | 1,081 | 0.0037 | 0.35\% | 0.35\% | 3.8 | 3.8 | 106\% | 106\% |
| 45-49 | 5 | 1,368 | 0.0037 | 0.39\% | 0.39\% | 5.4 | 5.4 | 93\% | 93\% |
| 50-54 | 7 | 1,418 | 0.0049 | 0.41\% | 0.41\% | 5.8 | 5.8 | 120\% | 120\% |
| 55-59 | 5 | 988 | 0.0051 | 0.42\% | 0.42\% | 4.1 | 4.1 | 121\% | 121\% |
| 60-64 | 3 | 424 | 0.0071 | 0.42\% | 0.42\% | 1.8 | 1.8 | 167\% | 167\% |
| 65-69 | 1 | 106 | 0.0094 | 0.42\% | 0.42\% | 0.4 | 0.4 | 225\% | 225\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 25 | 5,985 |  |  |  | 23.3 | 23.3 | 107\% | 107\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA

 ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN| Plan <br> Year <br> Ending <br> June 30, | TABLE 10D <br> Life Years Exposed | Actual <br> Disabilities | Expected <br> Disabilities | 10-YEAR PERIOD ENDING 6/30/2013 <br> Disability Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / Expected | $\begin{aligned} & \text { Actual } \\ & (3) /(2) \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 779 | 5 | 0.1 | 7346\% | 0.64\% | 0.01\% |
| 2005 | 751 | 2 | 0.1 | 3056\% | 0.27\% | 0.01\% |
| 2006 | 731 | 5 | 0.1 | 7849\% | 0.68\% | 0.01\% |
| 2007 | 701 | 4 | 0.1 | 6548\% | 0.57\% | 0.01\% |
| 2008 | 693 | 1 | 0.1 | 1655\% | 0.14\% | 0.01\% |
| 2009 | 686 | 0 | 0.1 | 0\% | 0.00\% | 0.01\% |
| 2010 | 791 | 2 | 0.1 | 2901\% | 0.25\% | 0.01\% |
| 2011 | 853 | 6 | 0.1 | 8065\% | 0.70\% | 0.01\% |
| 2012 | 936 | 1 | 0.1 | 1226\% | 0.11\% | 0.01\% |
| 2013 | 993 | 3 | 0.1 | 3464\% | 0.30\% | 0.01\% |
| Total | 7,914 | 29 | 0.7 | 4202\% | 0.37\% | 0.01\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA aCCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN

| Age | TABLE 11A |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ \text { (3) } \times(5) \\ \hline \end{gathered}$ | Proposed $(3) \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 1 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 8 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 14 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 22 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 25 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 31 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 26 | 0 | 40 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 54 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 28 | 0 | 65 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 29 | 0 | 78 | 0.0000 | 0.03\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 30 | 0 | 84 | 0.0000 | 0.03\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 31 | 0 | 99 | 0.0000 | 0.03\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 32 | 0 | 111 | 0.0000 | 0.04\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 33 | 0 | 122 | 0.0000 | 0.04\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 34 | 0 | 145 | 0.0000 | 0.05\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 35 | 0 | 153 | 0.0000 | 0.05\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 36 | 0 | 164 | 0.0000 | 0.05\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 37 | 0 | 169 | 0.0000 | 0.06\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 38 | 0 | 162 | 0.0000 | 0.06\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 39 | 0 | 168 | 0.0000 | 0.07\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 40 | 0 | 167 | 0.0000 | 0.07\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 41 | 0 | 156 | 0.0000 | 0.07\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 42 | 0 | 142 | 0.0000 | 0.08\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 43 | 0 | 147 | 0.0000 | 0.08\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 44 | 0 | 167 | 0.0000 | 0.08\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 45 | 0 | 181 | 0.0000 | 0.08\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 46 | 0 | 185 | 0.0000 | 0.08\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 47 | 0 | 179 | 0.0000 | 0.09\% | 0.04\% | 0.2 | 0.1 | 0\% | 0\% |
| 48 | 0 | 185 | 0.0000 | 0.09\% | 0.04\% | 0.2 | 0.1 | 0\% | 0\% |
| 49 | 0 | 185 | 0.0000 | 0.09\% | 0.04\% | 0.2 | 0.1 | 0\% | 0\% |
| 50 | 0 | 195 | 0.0000 | 0.09\% | 0.04\% | 0.2 | 0.1 | 0\% | 0\% |
| 51 | 0 | 190 | 0.0000 | 0.09\% | 0.04\% | 0.2 | 0.1 | 0\% | 0\% |
| 52 | 0 | 165 | 0.0000 | 0.09\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 53 | 0 | 160 | 0.0000 | 0.10\% | 0.04\% | 0.2 | 0.1 | 0\% | 0\% |
| 54 | 0 | 139 | 0.0000 | 0.10\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 55 | 0 | 141 | 0.0000 | 0.10\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 56 | 0 | 128 | 0.0000 | 0.10\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 57 | 0 | 113 | 0.0000 | 0.10\% | 0.04\% | 0.1 | 0.0 | 0\% | 0\% |
| 58 | 0 | 111 | 0.0000 | 0.10\% | 0.04\% | 0.1 | 0.0 | 0\% | 0\% |
| 59 | 0 | 91 | 0.0000 | 0.10\% | 0.04\% | 0.1 | 0.0 | 0\% | 0\% |
| 60 | 0 | 84 | 0.0000 | 0.10\% | 0.04\% | 0.1 | 0.0 | 0\% | 0\% |
| 61 | 0 | 74 | 0.0000 | 0.10\% | 0.04\% | 0.1 | 0.0 | 0\% | 0\% |
| 62 | 0 | 61 | 0.0000 | 0.10\% | 0.04\% | 0.1 | 0.0 | 0\% | 0\% |
| 63 | 0 | 47 | 0.0000 | 0.10\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 64 | 0 | 33 | 0.0000 | 0.10\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 0 | 25 | 0.0000 | 0.10\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 19 | 0.0000 | 0.10\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 13 | 0.0000 | 0.10\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 12 | 0.0000 | 0.10\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 6 | 0.0000 | 0.10\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 0 | 5,216 |  |  |  | 3.9 | 2.1 | 0\% | 0\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA accidental disability experience of active members WOMEN

| Age | TABLE 11B |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) /(3) } \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $\text { (3) } \times(5)$ | Proposed $(3) \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | $\begin{aligned} & \text { Proposed } \\ & (2) /(8) \\ & \hline \end{aligned}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.02\% | 0.02\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.02\% | 0.02\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.02\% | 0.02\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 3 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 6 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 5 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 26 | 0 | 5 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 9 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 28 | 0 | 13 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 29 | 0 | 17 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 30 | 0 | 27 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 31 | 0 | 28 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 32 | 0 | 29 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 33 | 0 | 31 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 34 | 0 | 38 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 35 | 0 | 45 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 36 | 0 | 45 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 37 | 1 | 49 | 0.0204 | 0.02\% | 0.02\% | 0.0 | 0.0 | 10204\% | 10204\% |
| 38 | 0 | 46 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 39 | 0 | 40 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 40 | 0 | 53 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 59 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 64 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 70 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 67 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 61 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 54 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 62 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 53 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 51 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 54 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 38 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 37 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 33 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 0 | 24 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 0 | 27 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 56 | 0 | 26 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 57 | 0 | 25 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 58 | 0 | 31 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 59 | 0 | 31 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 60 | 0 | 27 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 61 | 0 | 27 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 62 | 0 | 18 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 63 | 0 | 8 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 64 | 0 | 10 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 0 | 7 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 6 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 3 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.02\% | 0.02\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.02\% | 0.02\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 1 | 1,462 |  |  |  | 0.3 | 0.3 | 342\% | 342\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA accidental disability experience of active members MEN AND WOMEN

|  | TABLE 11C |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 1 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 8 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 14 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 25 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 31 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 36 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 26 | 0 | 45 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 63 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 28 | 0 | 78 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 29 | 0 | 95 | 0.0000 | 0.03\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 30 | 0 | 111 | 0.0000 | 0.03\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 31 | 0 | 127 | 0.0000 | 0.03\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 32 | 0 | 140 | 0.0000 | 0.04\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 33 | 0 | 153 | 0.0000 | 0.04\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 34 | 0 | 183 | 0.0000 | 0.04\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 35 | 0 | 198 | 0.0000 | 0.04\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 36 | 0 | 209 | 0.0000 | 0.04\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 37 | 1 | 218 | 0.0046 | 0.05\% | 0.04\% | 0.1 | 0.1 | 899\% | 1292\% |
| 38 | 0 | 208 | 0.0000 | 0.05\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 39 | 0 | 208 | 0.0000 | 0.06\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 40 | 0 | 220 | 0.0000 | 0.06\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 41 | 0 | 215 | 0.0000 | 0.06\% | 0.03\% | 0.1 | 0.1 | 0\% | 0\% |
| 42 | 0 | 206 | 0.0000 | 0.06\% | 0.03\% | 0.1 | 0.1 | 0\% | 0\% |
| 43 | 0 | 217 | 0.0000 | 0.06\% | 0.03\% | 0.1 | 0.1 | 0\% | 0\% |
| 44 | 0 | 234 | 0.0000 | 0.06\% | 0.03\% | 0.1 | 0.1 | 0\% | 0\% |
| 45 | 0 | 242 | 0.0000 | 0.06\% | 0.03\% | 0.2 | 0.1 | 0\% | 0\% |
| 46 | 0 | 239 | 0.0000 | 0.07\% | 0.04\% | 0.2 | 0.1 | 0\% | 0\% |
| 47 | 0 | 241 | 0.0000 | 0.07\% | 0.03\% | 0.2 | 0.1 | 0\% | 0\% |
| 48 | 0 | 238 | 0.0000 | 0.07\% | 0.04\% | 0.2 | 0.1 | 0\% | 0\% |
| 49 | 0 | 236 | 0.0000 | 0.07\% | 0.04\% | 0.2 | 0.1 | 0\% | 0\% |
| 50 | 0 | 249 | 0.0000 | 0.07\% | 0.04\% | 0.2 | 0.1 | 0\% | 0\% |
| 51 | 0 | 228 | 0.0000 | 0.08\% | 0.04\% | 0.2 | 0.1 | 0\% | 0\% |
| 52 | 0 | 202 | 0.0000 | 0.08\% | 0.04\% | 0.2 | 0.1 | 0\% | 0\% |
| 53 | 0 | 193 | 0.0000 | 0.09\% | 0.04\% | 0.2 | 0.1 | 0\% | 0\% |
| 54 | 0 | 163 | 0.0000 | 0.09\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 55 | 0 | 168 | 0.0000 | 0.09\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 56 | 0 | 154 | 0.0000 | 0.09\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 57 | 0 | 138 | 0.0000 | 0.09\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 58 | 0 | 142 | 0.0000 | 0.08\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 59 | 0 | 122 | 0.0000 | 0.08\% | 0.03\% | 0.1 | 0.0 | 0\% | 0\% |
| 60 | 0 | 111 | 0.0000 | 0.08\% | 0.04\% | 0.1 | 0.0 | 0\% | 0\% |
| 61 | 0 | 101 | 0.0000 | 0.08\% | 0.03\% | 0.1 | 0.0 | 0\% | 0\% |
| 62 | 0 | 79 | 0.0000 | 0.08\% | 0.04\% | 0.1 | 0.0 | 0\% | 0\% |
| 63 | 0 | 55 | 0.0000 | 0.09\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 64 | 0 | 43 | 0.0000 | 0.08\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 0 | 32 | 0.0000 | 0.08\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 25 | 0.0000 | 0.08\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 16 | 0.0000 | 0.09\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 12 | 0.0000 | 0.10\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 6 | 0.0000 | 0.10\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 1 | 6,678 |  |  |  | 4.2 | 2.4 | 24\% | 42\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA

## ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS

 MEN|  | TABLE 11A GROUPED |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2011$\begin{aligned} & \text { Expected Disabilities }\end{aligned} \quad$ Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $\text { (2) } /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 70 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 25-29 | 0 | 268 | 0.0000 | 0.02\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 30-34 | 0 | 561 | 0.0000 | 0.04\% | 0.04\% | 0.2 | 0.2 | 0\% | 0\% |
| 35-39 | 0 | 816 | 0.0000 | 0.06\% | 0.04\% | 0.5 | 0.3 | 0\% | 0\% |
| 40-44 | 0 | 779 | 0.0000 | 0.08\% | 0.04\% | 0.6 | 0.3 | 0\% | 0\% |
| 45-49 | 0 | 915 | 0.0000 | 0.09\% | 0.04\% | 0.8 | 0.4 | 0\% | 0\% |
| 50-54 | 0 | 849 | 0.0000 | 0.09\% | 0.04\% | 0.8 | 0.3 | 0\% | 0\% |
| 55-59 | 0 | 584 | 0.0000 | 0.10\% | 0.04\% | 0.6 | 0.2 | 0\% | 0\% |
| 60-64 | 0 | 299 | 0.0000 | 0.10\% | 0.04\% | 0.3 | 0.1 | 0\% | 0\% |
| 65-69 | 0 | 75 | 0.0000 | 0.10\% | 0.04\% | 0.1 | 0.0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 0 | 5,216 |  |  |  | 3.9 | 2.1 | 0\% | 0\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA

## ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS

 WOMEN|  | TABLE 11B GROUPED |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2011 <br> Expected Disabilities <br> Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } /(\mathbf{3}) \\ & \hline \end{aligned}$ | Expected $(7) /(3)$ | Proposed $(8) /(3)$ | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 9 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 25-29 | 0 | 49 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 30-34 | 0 | 153 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 35-39 | 1 | 225 | 0.0044 | 0.02\% | 0.02\% | 0.0 | 0.0 | 2222\% | 2222\% |
| 40-44 | 0 | 313 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 45-49 | 0 | 281 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 50-54 | 0 | 186 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 55-59 | 0 | 140 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 60-64 | 0 | 90 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 65-69 | 0 | 16 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 1 | 1,462 |  |  |  | 0.3 | 0.3 | $342 \%$ | 342\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA
ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

|  | TABLE 11C GROUPED |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2011Expected Disabilities |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } /(\mathbf{3}) \\ & \hline \end{aligned}$ | Expected $(7) /(3)$ | Proposed $(8) /(3)$ | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 79 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 25-29 | 0 | 317 | 0.0000 | 0.02\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 30-34 | 0 | 714 | 0.0000 | 0.04\% | 0.04\% | 0.3 | 0.3 | 0\% | 0\% |
| 35-39 | 1 | 1,041 | 0.0010 | 0.05\% | 0.04\% | 0.5 | 0.4 | 192\% | 269\% |
| 40-44 | 0 | 1,092 | 0.0000 | 0.06\% | 0.03\% | 0.7 | 0.4 | 0\% | 0\% |
| 45-49 | 0 | 1,196 | 0.0000 | 0.07\% | 0.04\% | 0.8 | 0.4 | 0\% | 0\% |
| 50-54 | 0 | 1,035 | 0.0000 | 0.08\% | 0.04\% | 0.8 | 0.4 | 0\% | 0\% |
| 55-59 | 0 | 724 | 0.0000 | 0.08\% | 0.04\% | 0.6 | 0.3 | 0\% | 0\% |
| 60-64 | 0 | 389 | 0.0000 | 0.08\% | 0.04\% | 0.3 | 0.1 | 0\% | 0\% |
| 65-69 | 0 | 91 | 0.0000 | 0.09\% | 0.04\% | 0.1 | 0.0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 1 | 6,678 |  |  |  | 4.2 | 2.4 | 24\% | 42\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA aCCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN

| Age | TABLE 11A |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ \text { (3) } \times(5) \\ \hline \end{gathered}$ | Proposed $(3) \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 2 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 12 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 22 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 42 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 56 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 74 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 26 | 0 | 95 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 119 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 28 | 0 | 133 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.1 | 0\% | 0\% |
| 29 | 0 | 157 | 0.0000 | 0.03\% | 0.04\% | 0.0 | 0.1 | 0\% | 0\% |
| 30 | 0 | 188 | 0.0000 | 0.03\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 31 | 0 | 218 | 0.0000 | 0.03\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 32 | 0 | 248 | 0.0000 | 0.04\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 33 | 0 | 260 | 0.0000 | 0.04\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 34 | 1 | 279 | 0.0036 | 0.05\% | 0.04\% | 0.1 | 0.1 | 717\% | 896\% |
| 35 | 0 | 295 | 0.0000 | 0.05\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 36 | 0 | 299 | 0.0000 | 0.05\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 37 | 0 | 297 | 0.0000 | 0.06\% | 0.04\% | 0.2 | 0.1 | 0\% | 0\% |
| 38 | 0 | 288 | 0.0000 | 0.06\% | 0.04\% | 0.2 | 0.1 | 0\% | 0\% |
| 39 | 0 | 297 | 0.0000 | 0.07\% | 0.04\% | 0.2 | 0.1 | 0\% | 0\% |
| 40 | 0 | 317 | 0.0000 | 0.07\% | 0.04\% | 0.2 | 0.1 | 0\% | 0\% |
| 41 | 0 | 323 | 0.0000 | 0.07\% | 0.04\% | 0.2 | 0.1 | 0\% | 0\% |
| 42 | 0 | 315 | 0.0000 | 0.08\% | 0.04\% | 0.3 | 0.1 | 0\% | 0\% |
| 43 | 0 | 311 | 0.0000 | 0.08\% | 0.04\% | 0.2 | 0.1 | 0\% | 0\% |
| 44 | 0 | 343 | 0.0000 | 0.08\% | 0.04\% | 0.3 | 0.1 | 0\% | 0\% |
| 45 | 0 | 353 | 0.0000 | 0.08\% | 0.04\% | 0.3 | 0.1 | 0\% | 0\% |
| 46 | 0 | 371 | 0.0000 | 0.08\% | 0.04\% | 0.3 | 0.1 | 0\% | 0\% |
| 47 | 0 | 375 | 0.0000 | 0.09\% | 0.04\% | 0.3 | 0.2 | 0\% | 0\% |
| 48 | 1 | 374 | 0.0027 | 0.09\% | 0.04\% | 0.3 | 0.1 | 297\% | 668\% |
| 49 | 0 | 376 | 0.0000 | 0.09\% | 0.04\% | 0.3 | 0.2 | 0\% | 0\% |
| 50 | 1 | 373 | 0.0027 | 0.09\% | 0.04\% | 0.3 | 0.1 | 298\% | 670\% |
| 51 | 0 | 357 | 0.0000 | 0.09\% | 0.04\% | 0.3 | 0.1 | 0\% | 0\% |
| 52 | 0 | 341 | 0.0000 | 0.09\% | 0.04\% | 0.3 | 0.1 | 0\% | 0\% |
| 53 | 0 | 314 | 0.0000 | 0.10\% | 0.04\% | 0.3 | 0.1 | 0\% | 0\% |
| 54 | 0 | 293 | 0.0000 | 0.10\% | 0.04\% | 0.3 | 0.1 | 0\% | 0\% |
| 55 | 0 | 281 | 0.0000 | 0.10\% | 0.04\% | 0.3 | 0.1 | 0\% | 0\% |
| 56 | 0 | 258 | 0.0000 | 0.10\% | 0.04\% | 0.3 | 0.1 | 0\% | 0\% |
| 57 | 0 | 226 | 0.0000 | 0.10\% | 0.04\% | 0.2 | 0.1 | 0\% | 0\% |
| 58 | 0 | 195 | 0.0000 | 0.10\% | 0.04\% | 0.2 | 0.1 | 0\% | 0\% |
| 59 | 0 | 157 | 0.0000 | 0.10\% | 0.04\% | 0.2 | 0.1 | 0\% | 0\% |
| 60 | 0 | 136 | 0.0000 | 0.10\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 61 | 0 | 122 | 0.0000 | 0.10\% | 0.04\% | 0.1 | 0.0 | 0\% | 0\% |
| 62 | 0 | 98 | 0.0000 | 0.10\% | 0.04\% | 0.1 | 0.0 | 0\% | 0\% |
| 63 | 0 | 74 | 0.0000 | 0.10\% | 0.04\% | 0.1 | 0.0 | 0\% | 0\% |
| 64 | 0 | 55 | 0.0000 | 0.10\% | 0.04\% | 0.1 | 0.0 | 0\% | 0\% |
| 65 | 0 | 40 | 0.0000 | 0.10\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 29 | 0.0000 | 0.10\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 22 | 0.0000 | 0.10\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 18 | 0.0000 | 0.10\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 12 | 0.0000 | 0.10\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 3 | 10,240 |  |  |  | 7.6 | 4.1 | 40\% | 73\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA accidental disability experience of active members WOMEN

| Age | TABLE 11B |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \quad(2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ \text { (3) } \times(5) \\ \hline \end{gathered}$ | Proposed $\text { (3) } \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.02\% | 0.02\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 1 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 1 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 5 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 9 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 17 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 26 | 0 | 24 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 35 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 28 | 0 | 44 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 29 | 0 | 51 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 30 | 0 | 61 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 31 | 0 | 65 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 32 | 0 | 69 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 33 | 0 | 76 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 34 | 0 | 81 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 35 | 0 | 86 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 36 | 0 | 97 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 37 | 1 | 103 | 0.0097 | 0.02\% | 0.02\% | 0.0 | 0.0 | 4854\% | 4854\% |
| 38 | 0 | 111 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 39 | 0 | 112 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 40 | 0 | 127 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 120 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 117 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 131 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 122 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 113 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 111 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 106 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 96 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 94 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 82 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 65 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 66 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 64 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 0 | 63 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 0 | 64 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 56 | 0 | 58 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 57 | 0 | 56 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 58 | 0 | 54 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 59 | 0 | 45 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 60 | 0 | 39 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 61 | 0 | 37 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 62 | 0 | 26 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 63 | 0 | 18 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 64 | 0 | 13 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 0 | 9 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 8 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 5 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 2 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 2 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 1 | 2,961 |  |  |  | 0.6 | 0.6 | 169\% | 169\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA accidental disability experience of active members MEN AND WOMEN

|  | TABLE 11C |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 2 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 13 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 23 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 47 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 65 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 91 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 26 | 0 | 119 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 154 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.1 | 0\% | 0\% |
| 28 | 0 | 177 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.1 | 0\% | 0\% |
| 29 | 0 | 208 | 0.0000 | 0.03\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 30 | 0 | 249 | 0.0000 | 0.03\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 31 | 0 | 283 | 0.0000 | 0.03\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 32 | 0 | 317 | 0.0000 | 0.04\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 33 | 0 | 336 | 0.0000 | 0.04\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 34 | 1 | 360 | 0.0028 | 0.04\% | 0.04\% | 0.2 | 0.1 | 642\% | 782\% |
| 35 | 0 | 381 | 0.0000 | 0.04\% | 0.04\% | 0.2 | 0.1 | 0\% | 0\% |
| 36 | 0 | 396 | 0.0000 | 0.04\% | 0.04\% | 0.2 | 0.1 | 0\% | 0\% |
| 37 | 1 | 400 | 0.0025 | 0.05\% | 0.03\% | 0.2 | 0.1 | 503\% | 717\% |
| 38 | 0 | 399 | 0.0000 | 0.05\% | 0.03\% | 0.2 | 0.1 | 0\% | 0\% |
| 39 | 0 | 409 | 0.0000 | 0.06\% | 0.03\% | 0.2 | 0.1 | 0\% | 0\% |
| 40 | 0 | 444 | 0.0000 | 0.06\% | 0.03\% | 0.2 | 0.2 | 0\% | 0\% |
| 41 | 0 | 443 | 0.0000 | 0.06\% | 0.03\% | 0.3 | 0.2 | 0\% | 0\% |
| 42 | 0 | 432 | 0.0000 | 0.06\% | 0.03\% | 0.3 | 0.1 | 0\% | 0\% |
| 43 | 0 | 442 | 0.0000 | 0.06\% | 0.03\% | 0.3 | 0.2 | 0\% | 0\% |
| 44 | 0 | 465 | 0.0000 | 0.06\% | 0.03\% | 0.3 | 0.2 | 0\% | 0\% |
| 45 | 0 | 466 | 0.0000 | 0.07\% | 0.04\% | 0.3 | 0.2 | 0\% | 0\% |
| 46 | 0 | 482 | 0.0000 | 0.07\% | 0.04\% | 0.3 | 0.2 | 0\% | 0\% |
| 47 | 0 | 481 | 0.0000 | 0.07\% | 0.04\% | 0.4 | 0.2 | 0\% | 0\% |
| 48 | 1 | 470 | 0.0021 | 0.08\% | 0.04\% | 0.4 | 0.2 | 281\% | 592\% |
| 49 | 0 | 470 | 0.0000 | 0.08\% | 0.04\% | 0.4 | 0.2 | 0\% | 0\% |
| 50 | 1 | 455 | 0.0022 | 0.08\% | 0.04\% | 0.4 | 0.2 | 284\% | 604\% |
| 51 | 0 | 422 | 0.0000 | 0.08\% | 0.04\% | 0.3 | 0.2 | 0\% | 0\% |
| 52 | 0 | 407 | 0.0000 | 0.08\% | 0.04\% | 0.3 | 0.1 | 0\% | 0\% |
| 53 | 0 | 378 | 0.0000 | 0.09\% | 0.04\% | 0.3 | 0.1 | 0\% | 0\% |
| 54 | 0 | 356 | 0.0000 | 0.09\% | 0.04\% | 0.3 | 0.1 | 0\% | 0\% |
| 55 | 0 | 345 | 0.0000 | 0.09\% | 0.04\% | 0.3 | 0.1 | 0\% | 0\% |
| 56 | 0 | 316 | 0.0000 | 0.09\% | 0.04\% | 0.3 | 0.1 | 0\% | 0\% |
| 57 | 0 | 282 | 0.0000 | 0.08\% | 0.04\% | 0.2 | 0.1 | 0\% | 0\% |
| 58 | 0 | 249 | 0.0000 | 0.08\% | 0.04\% | 0.2 | 0.1 | 0\% | 0\% |
| 59 | 0 | 202 | 0.0000 | 0.08\% | 0.04\% | 0.2 | 0.1 | 0\% | 0\% |
| 60 | 0 | 175 | 0.0000 | 0.08\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 61 | 0 | 159 | 0.0000 | 0.08\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 62 | 0 | 124 | 0.0000 | 0.08\% | 0.04\% | 0.1 | 0.0 | 0\% | 0\% |
| 63 | 0 | 92 | 0.0000 | 0.08\% | 0.04\% | 0.1 | 0.0 | 0\% | 0\% |
| 64 | 0 | 68 | 0.0000 | 0.08\% | 0.04\% | 0.1 | 0.0 | 0\% | 0\% |
| 65 | 0 | 49 | 0.0000 | 0.09\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 37 | 0.0000 | 0.08\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 27 | 0.0000 | 0.09\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 20 | 0.0000 | 0.09\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 14 | 0.0000 | 0.09\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 4 | 13,201 |  |  |  | 8.2 | 4.7 | 49\% | 85\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA

## ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS

 MEN| Age | TABLE 11A GROUPED |  |  | $\begin{array}{lcc} & \text { 8-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Assumed Probability } & \text { Expected Disabilities }\end{array}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2)/(3) } \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | Proposed (8) / (3) | Expected | Proposed | Expected $(2) /(7)$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 134 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.1 | 0\% | 0\% |
| 25-29 | 0 | 578 | 0.0000 | 0.02\% | 0.04\% | 0.1 | 0.2 | 0\% | 0\% |
| 30-34 | 1 | 1,193 | 0.0008 | 0.04\% | 0.04\% | 0.5 | 0.5 | 215\% | 210\% |
| 35-39 | 0 | 1,476 | 0.0000 | 0.06\% | 0.04\% | 0.9 | 0.6 | 0\% | 0\% |
| 40-44 | 0 | 1,609 | 0.0000 | 0.08\% | 0.04\% | 1.2 | 0.6 | 0\% | 0\% |
| 45-49 | 1 | 1,849 | 0.0005 | 0.09\% | 0.04\% | 1.6 | 0.7 | 63\% | 135\% |
| 50-54 | 1 | 1,678 | 0.0006 | 0.09\% | 0.04\% | 1.6 | 0.7 | 64\% | 149\% |
| 55-59 | 0 | 1,117 | 0.0000 | 0.10\% | 0.04\% | 1.1 | 0.4 | 0\% | 0\% |
| 60-64 | 0 | 485 | 0.0000 | 0.10\% | 0.04\% | 0.5 | 0.2 | 0\% | 0\% |
| 65-69 | 0 | 121 | 0.0000 | 0.10\% | 0.04\% | 0.1 | 0.0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 3 | 10,240 |  |  |  | 7.6 | 4.1 | 40\% | 73\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA

## ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS

 WOMEN|  | TABLE 11B GROUPED |  |  | $\begin{array}{lcl} & \text { 8-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Assumed Probability } & \text { Expected Disabilities }\end{array}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \quad(2) /(3) \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | $\begin{gathered} \text { Proposed } \\ (8) /(\mathbf{3}) \\ \hline \end{gathered}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 16 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 25-29 | 0 | 171 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 30-34 | 0 | 352 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 35-39 | 1 | 509 | 0.0020 | 0.02\% | 0.02\% | 0.1 | 0.1 | 982\% | 982\% |
| 40-44 | 0 | 617 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 45-49 | 0 | 520 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 50-54 | 0 | 340 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 55-59 | 0 | 277 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 60-64 | 0 | 133 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 65-69 | 0 | 26 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 1 | 2,961 |  |  |  | 0.6 | 0.6 | 169\% | 169\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA
ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

|  | TABLE 11C GROUPED |  |  | Assumed Probability |  | 8-YEAR PERIOD ENDING 6/30/2011Expected Disabilities |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } /(\mathbf{3}) \\ & \hline \end{aligned}$ | Expected $(7) /(3)$ | Proposed $(8) /(3)$ | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 150 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.1 | 0\% | 0\% |
| 25-29 | 0 | 749 | 0.0000 | 0.02\% | 0.04\% | 0.2 | 0.3 | 0\% | 0\% |
| 30-34 | 1 | 1,545 | 0.0006 | 0.03\% | 0.04\% | 0.5 | 0.5 | 187\% | 183\% |
| 35-39 | 1 | 1,985 | 0.0005 | 0.05\% | 0.03\% | 1.0 | 0.7 | 104\% | 144\% |
| 40-44 | 0 | 2,226 | 0.0000 | 0.06\% | 0.03\% | 1.3 | 0.8 | 0\% | 0\% |
| 45-49 | 1 | 2,369 | 0.0004 | 0.07\% | 0.04\% | 1.7 | 0.8 | 59\% | 119\% |
| 50-54 | 1 | 2,018 | 0.0005 | 0.08\% | 0.04\% | 1.6 | 0.7 | 61\% | 135\% |
| 55-59 | 0 | 1,394 | 0.0000 | 0.08\% | 0.04\% | 1.2 | 0.5 | 0\% | 0\% |
| 60-64 | 0 | 618 | 0.0000 | 0.08\% | 0.04\% | 0.5 | 0.2 | 0\% | 0\% |
| 65-69 | 0 | 147 | 0.0000 | 0.09\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 4 | 13,201 |  |  |  | 8.2 | 4.7 | 49\% | 85\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Plan Year Ending June 30, | TABLE 11D |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Disability Rate |  |
|  | Life Years Exposed | Actual Disabilities | Expected Disabilities | Actual / Expected | $\begin{aligned} & \hline \text { Actual } \\ & \text { (3) / (2) } \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 1,543 | 1 | 0.1 | 1445\% | 0.06\% | 0.00\% |
| 2005 | 1,633 | 0 | 0.1 | 0\% | 0.00\% | 0.00\% |
| 2006 | 1,675 | 0 | 0.1 | 0\% | 0.00\% | 0.00\% |
| 2007 | 1,672 | 2 | 0.1 | 2675\% | 0.12\% | 0.00\% |
| 2008 | 1,664 | 1 | 0.1 | 1338\% | 0.06\% | 0.00\% |
| 2009 | 1,692 | 0 | 0.1 | 0\% | 0.00\% | 0.00\% |
| 2010 | 1,676 | 0 | 0.1 | 0\% | 0.00\% | 0.00\% |
| 2011 | 1,646 | 0 | 0.1 | 0\% | 0.00\% | 0.00\% |
| 2012 | 1,575 | 0 | 0.1 | 0\% | 0.00\% | 0.00\% |
| 2013 | 1,519 | 0 | 0.1 | 0\% | 0.00\% | 0.00\% |
| Total | 16,295 | 4 | 0.7 | 549\% | 0.02\% | 0.00\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA <br> TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS <br> MEN AND WOMEN

TABLE 12A 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Total Salary BOY |  | Actual Salary EOY |  | $\begin{gathered} \text { Expected Salary } \\ \text { EOY } \\ \hline \end{gathered}$ |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 67 | \$ | 3,563,841 | \$ | 3,834,690 | \$ | 3,955,864 | 69\% | 7.60\% | 11.00\% |
| 1 | 146 |  | 7,912,217 |  | 8,542,345 |  | 8,703,439 | 80\% | 7.96\% | 10.00\% |
| 2 | 189 |  | 11,207,004 |  | 11,958,891 |  | 12,215,634 | 75\% | 6.71\% | 9.00\% |
| 3 | 234 |  | 14,336,829 |  | 15,588,879 |  | 15,627,144 | 97\% | 8.73\% | 9.00\% |
| 4 | 269 |  | 17,700,329 |  | 18,981,790 |  | 19,116,355 | 90\% | 7.24\% | 8.00\% |
| 5 | 372 |  | 25,726,423 |  | 27,124,466 |  | 27,527,273 | 78\% | 5.43\% | 7.00\% |
| 6 | 404 |  | 29,265,727 |  | 30,618,238 |  | 31,021,671 | 77\% | 4.62\% | 6.00\% |
| 7 | 481 |  | 36,029,001 |  | 37,116,497 |  | 37,830,451 | 60\% | 3.02\% | 5.00\% |
| 8 | 498 |  | 37,784,366 |  | 38,823,912 |  | 39,295,741 | 69\% | 2.75\% | 4.00\% |
| 9 | 503 |  | 39,233,285 |  | 39,984,686 |  | 40,724,150 | 50\% | 1.92\% | 3.80\% |
| 10 | 398 |  | 31,202,478 |  | 32,282,841 |  | 32,325,767 | 96\% | 3.46\% | 3.60\% |
| 11 | 311 |  | 25,139,117 |  | 25,554,413 |  | 26,018,986 | 47\% | 1.65\% | 3.50\% |
| 12 | 238 |  | 19,554,546 |  | 19,785,606 |  | 20,238,955 | 34\% | 1.18\% | 3.50\% |
| 13 | 119 |  | 9,551,440 |  | 9,754,549 |  | 9,885,740 | 61\% | 2.13\% | 3.50\% |
| 14 | 109 |  | 8,838,939 |  | 9,020,788 |  | 9,148,302 | 59\% | 2.06\% | 3.50\% |
| 15 | 108 |  | 8,940,125 |  | 9,071,283 |  | 9,253,029 | 42\% | 1.47\% | 3.50\% |
| 16 | 94 |  | 7,820,271 |  | 7,986,177 |  | 8,093,980 | 61\% | 2.12\% | 3.50\% |
| 17 | 111 |  | 9,509,045 |  | 9,640,604 |  | 9,841,862 | 40\% | 1.38\% | 3.50\% |
| 18 | 118 |  | 10,090,152 |  | 10,124,127 |  | 10,443,307 | 10\% | 0.34\% | 3.50\% |
| 19 | 159 |  | 13,718,465 |  | 13,808,806 |  | 14,198,611 | 19\% | 0.66\% | 3.50\% |
| 20 | 161 |  | 14,105,332 |  | 14,168,756 |  | 14,599,019 | 13\% | 0.45\% | 3.50\% |
| 21 | 156 |  | 13,834,236 |  | 13,886,608 |  | 14,318,434 | 11\% | 0.38\% | 3.50\% |
| 22 | 143 |  | 12,711,975 |  | 12,803,555 |  | 13,156,894 | 21\% | 0.72\% | 3.50\% |
| 23 | 93 |  | 8,406,689 |  | 8,426,888 |  | 8,700,923 | 7\% | 0.24\% | 3.50\% |
| 24 | 78 |  | 7,057,757 |  | 7,038,102 |  | 7,304,778 | -8\% | -0.28\% | 3.50\% |
| 25 | 86 |  | 7,683,032 |  | 7,629,907 |  | 7,951,938 | -20\% | -0.69\% | 3.50\% |
| 26 | 62 |  | 5,501,181 |  | 5,521,183 |  | 5,693,722 | 10\% | 0.36\% | 3.50\% |
| 27 | 78 |  | 7,049,543 |  | 7,079,551 |  | 7,296,277 | 12\% | 0.43\% | 3.50\% |
| 28 | 60 |  | 5,568,734 |  | 5,635,907 |  | 5,763,640 | 34\% | 1.21\% | 3.50\% |
| 29 | 56 |  | 5,240,263 |  | 5,229,545 |  | 5,423,672 | -6\% | -0.20\% | 3.50\% |
| 30+ | 46 |  | 4,277,979 |  | 4,279,386 |  | 4,427,708 | 1\% | 0.03\% | 3.50\% |
| Total | 5,947 |  | 458,560,321 |  | 471,302,976 |  | 480,103,267 | 59\% | 2.78\% | 4.70\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA

## TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS

MEN AND WOMEN

TABLE 12A 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Total Salary BOY |  | Actual Salary EOY |  | Proposed SalaryEOY |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 67 | \$ | 3,563,841 | \$ | 3,834,690 | \$ | 3,964,773 | 68\% | 7.60\% | 11.25\% |
| 1 | 146 |  | 7,912,217 |  | 8,542,345 |  | 8,564,975 | 97\% | 7.96\% | 8.25\% |
| 2 | 189 |  | 11,207,004 |  | 11,958,891 |  | 12,075,547 | 87\% | 6.71\% | 7.75\% |
| 3 | 234 |  | 14,336,829 |  | 15,588,879 |  | 15,447,933 | 113\% | 8.73\% | 7.75\% |
| 4 | 269 |  | 17,700,329 |  | 18,981,790 |  | 19,072,104 | 93\% | 7.24\% | 7.75\% |
| 5 | 372 |  | 25,726,423 |  | 27,124,466 |  | 27,462,957 | 81\% | 5.43\% | 6.75\% |
| 6 | 404 |  | 29,265,727 |  | 30,618,238 |  | 30,655,849 | 97\% | 4.62\% | 4.75\% |
| 7 | 481 |  | 36,029,001 |  | 37,116,497 |  | 37,740,379 | 64\% | 3.02\% | 4.75\% |
| 8 | 498 |  | 37,784,366 |  | 38,823,912 |  | 39,390,202 | 65\% | 2.75\% | 4.25\% |
| 9 | 503 |  | 39,233,285 |  | 39,984,686 |  | 40,822,233 | 47\% | 1.92\% | 4.05\% |
| 10 | 398 |  | 31,202,478 |  | 32,282,841 |  | 32,403,773 | 90\% | 3.46\% | 3.85\% |
| 11 | 311 |  | 25,139,117 |  | 25,554,413 |  | 26,081,834 | 44\% | 1.65\% | 3.75\% |
| 12 | 238 |  | 19,554,546 |  | 19,785,606 |  | 20,287,841 | 32\% | 1.18\% | 3.75\% |
| 13 | 119 |  | 9,551,440 |  | 9,754,549 |  | 9,909,619 | 57\% | 2.13\% | 3.75\% |
| 14 | 109 |  | 8,838,939 |  | 9,020,788 |  | 9,170,399 | 55\% | 2.06\% | 3.75\% |
| 15 | 108 |  | 8,940,125 |  | 9,071,283 |  | 9,275,380 | 39\% | 1.47\% | 3.75\% |
| 16 | 94 |  | 7,820,271 |  | 7,986,177 |  | 8,113,531 | 57\% | 2.12\% | 3.75\% |
| 17 | 111 |  | 9,509,045 |  | 9,640,604 |  | 9,865,634 | 37\% | 1.38\% | 3.75\% |
| 18 | 118 |  | 10,090,152 |  | 10,124,127 |  | 10,468,533 | 9\% | 0.34\% | 3.75\% |
| 19 | 159 |  | 13,718,465 |  | 13,808,806 |  | 14,232,907 | 18\% | 0.66\% | 3.75\% |
| 20 | 161 |  | 14,105,332 |  | 14,168,756 |  | 14,634,282 | 12\% | 0.45\% | 3.75\% |
| 21 | 156 |  | 13,834,236 |  | 13,886,608 |  | 14,353,020 | 10\% | 0.38\% | 3.75\% |
| 22 | 143 |  | 12,711,975 |  | 12,803,555 |  | 13,188,674 | 19\% | 0.72\% | 3.75\% |
| 23 | 93 |  | 8,406,689 |  | 8,426,888 |  | 8,721,940 | 6\% | 0.24\% | 3.75\% |
| 24 | 78 |  | 7,057,757 |  | 7,038,102 |  | 7,322,423 | -7\% | -0.28\% | 3.75\% |
| 25 | 86 |  | 7,683,032 |  | 7,629,907 |  | 7,971,146 | -18\% | -0.69\% | 3.75\% |
| 26 | 62 |  | 5,501,181 |  | 5,521,183 |  | 5,707,475 | 10\% | 0.36\% | 3.75\% |
| 27 | 78 |  | 7,049,543 |  | 7,079,551 |  | 7,313,901 | 11\% | 0.43\% | 3.75\% |
| 28 | 60 |  | 5,568,734 |  | 5,635,907 |  | 5,777,562 | 32\% | 1.21\% | 3.75\% |
| 29 | 56 |  | 5,240,263 |  | 5,229,545 |  | 5,436,773 | -5\% | -0.20\% | 3.75\% |
| 30+ | 46 |  | 4,277,979 |  | 4,279,386 |  | 4,438,403 | 1\% | 0.03\% | 3.75\% |
| Total | 5,947 |  | 458,560,321 |  | 471,302,976 |  | 479,872,001 | 60\% | 2.78\% | 4.65\% |

# NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA <br> MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS <br> MEN AND WOMEN 

TABLE 12B 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Total Salary BOY |  | Estimated Actual <br> Merit Salary EOY |  | Expected Merit Salary EOY |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 67 | \$ | 3,563,841 | \$ | 3,783,078 | \$ | 3,831,129 | 82\% | 6.15\% | 7.50\% |
| 1 | 146 |  | 7,912,217 |  | 8,175,594 |  | 8,426,511 | 51\% | 3.33\% | 6.50\% |
| 2 | 189 |  | 11,207,004 |  | 11,617,100 |  | 11,823,389 | 67\% | 3.66\% | 5.50\% |
| 3 | 234 |  | 14,336,829 |  | 14,885,064 |  | 15,125,355 | 70\% | 3.82\% | 5.50\% |
| 4 | 269 |  | 17,700,329 |  | 18,372,313 |  | 18,496,844 | 84\% | 3.80\% | 4.50\% |
| 5 | 372 |  | 25,726,423 |  | 26,316,428 |  | 26,626,848 | 66\% | 2.29\% | 3.50\% |
| 6 | 404 |  | 29,265,727 |  | 29,518,702 |  | 29,997,370 | 35\% | 0.86\% | 2.50\% |
| 7 | 481 |  | 36,029,001 |  | 36,244,109 |  | 36,569,436 | 40\% | 0.60\% | 1.50\% |
| 8 | 498 |  | 37,784,366 |  | 37,872,243 |  | 37,973,288 | 47\% | 0.23\% | 0.50\% |
| 9 | 503 |  | 39,233,285 |  | 39,242,026 |  | 39,350,985 | 7\% | 0.02\% | 0.30\% |
| 10 | 398 |  | 31,202,478 |  | 31,242,125 |  | 31,233,680 | 127\% | 0.13\% | 0.10\% |
| 11 | 311 |  | 25,139,117 |  | 25,139,117 |  | 25,139,117 |  | 0.00\% | 0.00\% |
| 12 | 238 |  | 19,554,546 |  | 19,554,546 |  | 19,554,546 |  | 0.00\% | 0.00\% |
| 13 | 119 |  | 9,551,440 |  | 9,551,440 |  | 9,551,440 |  | 0.00\% | 0.00\% |
| 14 | 109 |  | 8,838,939 |  | 8,838,939 |  | 8,838,939 |  | 0.00\% | 0.00\% |
| 15 | 108 |  | 8,940,125 |  | 8,940,125 |  | 8,940,125 |  | 0.00\% | 0.00\% |
| 16 | 94 |  | 7,820,271 |  | 7,820,271 |  | 7,820,271 |  | 0.00\% | 0.00\% |
| 17 | 111 |  | 9,509,045 |  | 9,509,045 |  | 9,509,045 |  | 0.00\% | 0.00\% |
| 18 | 118 |  | 10,090,152 |  | 10,090,152 |  | 10,090,152 |  | 0.00\% | 0.00\% |
| 19 | 159 |  | 13,718,465 |  | 13,718,465 |  | 13,718,465 |  | 0.00\% | 0.00\% |
| 20 | 161 |  | 14,105,332 |  | 14,105,332 |  | 14,105,332 |  | 0.00\% | 0.00\% |
| 21 | 156 |  | 13,834,236 |  | 13,834,236 |  | 13,834,236 |  | 0.00\% | 0.00\% |
| 22 | 143 |  | 12,711,975 |  | 12,711,975 |  | 12,711,975 |  | 0.00\% | 0.00\% |
| 23 | 93 |  | 8,406,689 |  | 8,406,689 |  | 8,406,689 |  | 0.00\% | 0.00\% |
| 24 | 78 |  | 7,057,757 |  | 7,057,757 |  | 7,057,757 |  | 0.00\% | 0.00\% |
| 25 | 86 |  | 7,683,032 |  | 7,683,032 |  | 7,683,032 |  | 0.00\% | 0.00\% |
| 26 | 62 |  | 5,501,181 |  | 5,501,181 |  | 5,501,181 |  | 0.00\% | 0.00\% |
| 27 | 78 |  | 7,049,543 |  | 7,049,543 |  | 7,049,543 |  | 0.00\% | 0.00\% |
| 28 | 60 |  | 5,568,734 |  | 5,568,734 |  | 5,568,734 |  | 0.00\% | 0.00\% |
| 29 | 56 |  | 5,240,263 |  | 5,240,263 |  | 5,240,263 |  | 0.00\% | 0.00\% |
| $30+$ | 46 |  | 4,277,979 |  | 4,277,979 |  | 4,277,979 |  | 0.00\% | 0.00\% |
| Total | 5,947 |  | 458,560,321 |  | 461,867,603 |  | 464,053,656 | 60\% | 0.72\% | 1.20\% |

The rates for expected merit salary increases are based on actual rates of increase for total salary, adjusted for inflation of $1.71 \%$. Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

# NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA <br> MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS <br> MEN AND WOMEN 

TABLE 12B 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Total Salary BOY |  | Estimated Actual <br> Merit Salary EOY |  | Proposed Merit Salary EOY |  | Actual / <br> Proposed | Increase \% |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  |  | (5) | (6) | (7) | (8) |  |
| 0 | 67 | \$ | 3,563,841 | \$ | 3,783,078 | \$ | 3,831,129 | 82\% | 6.15\% |  | 7.50\% |
| 1 | 146 |  | 7,912,217 |  | 8,175,594 |  | 8,268,267 | 74\% | 3.33\% |  | 4.50\% |
| 2 | 189 |  | 11,207,004 |  | 11,617,100 |  | 11,655,284 | 91\% | 3.66\% |  | 4.00\% |
| 3 | 234 |  | 14,336,829 |  | 14,885,064 |  | 14,910,302 | 96\% | 3.82\% |  | 4.00\% |
| 4 | 269 |  | 17,700,329 |  | 18,372,313 |  | 18,408,342 | 95\% | 3.80\% |  | 4.00\% |
| 5 | 372 |  | 25,726,423 |  | 26,316,428 |  | 26,498,216 | 76\% | 2.29\% |  | 3.00\% |
| 6 | 404 |  | 29,265,727 |  | 29,518,702 |  | 29,558,384 | 86\% | 0.86\% |  | 1.00\% |
| 7 | 481 |  | 36,029,001 |  | 36,244,109 |  | 36,389,291 | 60\% | 0.60\% |  | 1.00\% |
| 8 | 498 |  | 37,784,366 |  | 37,872,243 |  | 37,973,288 | 47\% | 0.23\% |  | 0.50\% |
| 9 | 503 |  | 39,233,285 |  | 39,242,026 |  | 39,350,985 | 7\% | 0.02\% |  | 0.30\% |
| 10 | 398 |  | 31,202,478 |  | 31,242,125 |  | 31,233,680 | 127\% | 0.13\% |  | 0.10\% |
| 11 | 311 |  | 25,139,117 |  | 25,139,117 |  | 25,139,117 |  | 0.00\% |  | 0.00\% |
| 12 | 238 |  | 19,554,546 |  | 19,554,546 |  | 19,554,546 |  | 0.00\% |  | 0.00\% |
| 13 | 119 |  | 9,551,440 |  | 9,551,440 |  | 9,551,440 |  | 0.00\% |  | 0.00\% |
| 14 | 109 |  | 8,838,939 |  | 8,838,939 |  | 8,838,939 |  | 0.00\% |  | 0.00\% |
| 15 | 108 |  | 8,940,125 |  | 8,940,125 |  | 8,940,125 |  | 0.00\% |  | 0.00\% |
| 16 | 94 |  | 7,820,271 |  | 7,820,271 |  | 7,820,271 |  | 0.00\% |  | 0.00\% |
| 17 | 111 |  | 9,509,045 |  | 9,509,045 |  | 9,509,045 |  | 0.00\% |  | 0.00\% |
| 18 | 118 |  | 10,090,152 |  | 10,090,152 |  | 10,090,152 |  | 0.00\% |  | 0.00\% |
| 19 | 159 |  | 13,718,465 |  | 13,718,465 |  | 13,718,465 |  | 0.00\% |  | 0.00\% |
| 20 | 161 |  | 14,105,332 |  | 14,105,332 |  | 14,105,332 |  | 0.00\% |  | 0.00\% |
| 21 | 156 |  | 13,834,236 |  | 13,834,236 |  | 13,834,236 |  | 0.00\% |  | 0.00\% |
| 22 | 143 |  | 12,711,975 |  | 12,711,975 |  | 12,711,975 |  | 0.00\% |  | 0.00\% |
| 23 | 93 |  | 8,406,689 |  | 8,406,689 |  | 8,406,689 |  | 0.00\% |  | 0.00\% |
| 24 | 78 |  | 7,057,757 |  | 7,057,757 |  | 7,057,757 |  | 0.00\% |  | 0.00\% |
| 25 | 86 |  | 7,683,032 |  | 7,683,032 |  | 7,683,032 |  | 0.00\% |  | 0.00\% |
| 26 | 62 |  | 5,501,181 |  | 5,501,181 |  | 5,501,181 |  | 0.00\% |  | 0.00\% |
| 27 | 78 |  | 7,049,543 |  | 7,049,543 |  | 7,049,543 |  | 0.00\% |  | 0.00\% |
| 28 | 60 |  | 5,568,734 |  | 5,568,734 |  | 5,568,734 |  | 0.00\% |  | 0.00\% |
| 29 | 56 |  | 5,240,263 |  | 5,240,263 |  | 5,240,263 |  | 0.00\% |  | 0.00\% |
| 30+ | 46 |  | 4,277,979 |  | 4,277,979 |  | 4,277,979 |  | 0.00\% |  | 0.00\% |
| Total | 5,947 |  | 458,560,321 |  | 461,867,603 |  | 462,675,989 | 80\% | 0.72\% |  | 0.90\% |

[^13]
## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA <br> TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

TABLE 12A
10-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Total Salary BOY |  | Actual Salary EOY |  | $\begin{gathered} \text { Expected Salary } \\ \text { EOY } \\ \hline \end{gathered}$ |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 390 | \$ | 17,907,362 | \$ | 19,870,335 | \$ | 19,877,172 | 100\% | 10.96\% | 11.00\% |
| 1 | 862 |  | 42,876,994 |  | 46,131,100 |  | 47,164,693 | 76\% | 7.59\% | 10.00\% |
| 2 | 935 |  | 50,177,120 |  | 53,886,273 |  | 54,693,061 | 82\% | 7.39\% | 9.00\% |
| 3 | 1,075 |  | 61,376,774 |  | 66,047,348 |  | 66,900,684 | 85\% | 7.61\% | 9.00\% |
| 4 | 1,033 |  | 63,493,767 |  | 68,345,854 |  | 68,573,268 | 96\% | 7.64\% | 8.00\% |
| 5 | 1,017 |  | 66,434,239 |  | 70,744,503 |  | 71,084,636 | 93\% | 6.49\% | 7.00\% |
| 6 | 949 |  | 65,178,821 |  | 68,645,975 |  | 69,089,550 | 89\% | 5.32\% | 6.00\% |
| 7 | 887 |  | 63,899,440 |  | 66,405,186 |  | 67,094,412 | 78\% | 3.92\% | 5.00\% |
| 8 | 815 |  | 60,449,384 |  | 62,546,752 |  | 62,867,359 | 87\% | 3.47\% | 4.00\% |
| 9 | 715 |  | 53,821,344 |  | 55,198,409 |  | 55,866,555 | 67\% | 2.56\% | 3.80\% |
| 10 | 585 |  | 44,398,803 |  | 46,060,107 |  | 45,997,160 | 104\% | 3.74\% | 3.60\% |
| 11 | 510 |  | 39,505,433 |  | 40,641,789 |  | 40,888,123 | 82\% | 2.88\% | 3.50\% |
| 12 | 439 |  | 34,304,560 |  | 35,180,240 |  | 35,505,220 | 73\% | 2.55\% | 3.50\% |
| 13 | 392 |  | 29,349,981 |  | 30,012,873 |  | 30,377,230 | 65\% | 2.26\% | 3.50\% |
| 14 | 393 |  | 29,179,496 |  | 30,704,075 |  | 30,200,778 | 149\% | 5.22\% | 3.50\% |
| 15 | 389 |  | 29,713,476 |  | 30,690,827 |  | 30,753,448 | 94\% | 3.29\% | 3.50\% |
| 16 | 380 |  | 29,703,726 |  | 30,930,788 |  | 30,743,356 | 118\% | 4.13\% | 3.50\% |
| 17 | 386 |  | 30,839,446 |  | 31,520,906 |  | 31,918,827 | 63\% | 2.21\% | 3.50\% |
| 18 | 397 |  | 31,365,570 |  | 32,810,211 |  | 32,463,365 | 132\% | 4.61\% | 3.50\% |
| 19 | 397 |  | 32,096,071 |  | 33,136,197 |  | 33,219,433 | 93\% | 3.24\% | 3.50\% |
| 20 | 355 |  | 29,277,261 |  | 29,996,889 |  | 30,301,965 | 70\% | 2.46\% | 3.50\% |
| 21 | 363 |  | 29,917,538 |  | 30,666,184 |  | 30,964,652 | 71\% | 2.50\% | 3.50\% |
| 22 | 329 |  | 27,487,080 |  | 28,413,589 |  | 28,449,128 | 96\% | 3.37\% | 3.50\% |
| 23 | 267 |  | 22,529,589 |  | 22,984,350 |  | 23,318,125 | 58\% | 2.02\% | 3.50\% |
| 24 | 222 |  | 18,578,286 |  | 19,198,943 |  | 19,228,526 | 95\% | 3.34\% | 3.50\% |
| 25 | 193 |  | 16,500,563 |  | 16,372,331 |  | 17,078,083 | -22\% | -0.78\% | 3.50\% |
| 26 | 161 |  | 13,666,002 |  | 14,063,534 |  | 14,144,312 | 83\% | 2.91\% | 3.50\% |
| 27 | 138 |  | 11,865,648 |  | 12,002,467 |  | 12,280,946 | 33\% | 1.15\% | 3.50\% |
| 28 | 108 |  | 9,315,039 |  | 9,599,468 |  | 9,641,065 | 87\% | 3.05\% | 3.50\% |
| 29 | 81 |  | 7,246,143 |  | 7,373,844 |  | 7,499,758 | 50\% | 1.76\% | 3.50\% |
| 30+ | 69 |  | 6,526,792 |  | 6,501,448 |  | 6,755,230 | -11\% | -0.39\% | 3.50\% |
| Total | 15,232 |  | 1,068,981,748 |  | 1,116,682,795 |  | ,124,940,120 | 85\% | 4.46\% | 5.23\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA

## TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS

MEN AND WOMEN

TABLE 12A
10-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Total Salary BOY |  | Actual Salary EOY |  | $\begin{gathered} \text { Proposed Salary } \\ \text { EOY } \\ \hline \end{gathered}$ |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 390 | \$ | 17,907,362 | \$ | 19,870,335 | \$ | 19,921,940 | 97\% | 10.96\% | 11.25\% |
| 1 | 862 |  | 42,876,994 |  | 46,131,100 |  | 46,414,346 | 92\% | 7.59\% | 8.25\% |
| 2 | 935 |  | 50,177,120 |  | 53,886,273 |  | 54,065,847 | 95\% | 7.39\% | 7.75\% |
| 3 | 1,075 |  | 61,376,774 |  | 66,047,348 |  | 66,133,474 | 98\% | 7.61\% | 7.75\% |
| 4 | 1,033 |  | 63,493,767 |  | 68,345,854 |  | 68,414,534 | 99\% | 7.64\% | 7.75\% |
| 5 | 1,017 |  | 66,434,239 |  | 70,744,503 |  | 70,918,550 | 96\% | 6.49\% | 6.75\% |
| 6 | 949 |  | 65,178,821 |  | 68,645,975 |  | 68,274,815 | 112\% | 5.32\% | 4.75\% |
| 7 | 887 |  | 63,899,440 |  | 66,405,186 |  | 66,934,663 | 83\% | 3.92\% | 4.75\% |
| 8 | 815 |  | 60,449,384 |  | 62,546,752 |  | 63,018,483 | 82\% | 3.47\% | 4.25\% |
| 9 | 715 |  | 53,821,344 |  | 55,198,409 |  | 56,001,108 | 63\% | 2.56\% | 4.05\% |
| 10 | 585 |  | 44,398,803 |  | 46,060,107 |  | 46,108,157 | 97\% | 3.74\% | 3.85\% |
| 11 | 510 |  | 39,505,433 |  | 40,641,789 |  | 40,986,887 | 77\% | 2.88\% | 3.75\% |
| 12 | 439 |  | 34,304,560 |  | 35,180,240 |  | 35,590,981 | 68\% | 2.55\% | 3.75\% |
| 13 | 392 |  | 29,349,981 |  | 30,012,873 |  | 30,450,605 | 60\% | 2.26\% | 3.75\% |
| 14 | 393 |  | 29,179,496 |  | 30,704,075 |  | 30,273,727 | 139\% | 5.22\% | 3.75\% |
| 15 | 389 |  | 29,713,476 |  | 30,690,827 |  | 30,827,731 | 88\% | 3.29\% | 3.75\% |
| 16 | 380 |  | 29,703,726 |  | 30,930,788 |  | 30,817,616 | 110\% | 4.13\% | 3.75\% |
| 17 | 386 |  | 30,839,446 |  | 31,520,906 |  | 31,995,925 | 59\% | 2.21\% | 3.75\% |
| 18 | 397 |  | 31,365,570 |  | 32,810,211 |  | 32,541,779 | 123\% | 4.61\% | 3.75\% |
| 19 | 397 |  | 32,096,071 |  | 33,136,197 |  | 33,299,674 | 86\% | 3.24\% | 3.75\% |
| 20 | 355 |  | 29,277,261 |  | 29,996,889 |  | 30,375,158 | 66\% | 2.46\% | 3.75\% |
| 21 | 363 |  | 29,917,538 |  | 30,666,184 |  | 31,039,446 | 67\% | 2.50\% | 3.75\% |
| 22 | 329 |  | 27,487,080 |  | 28,413,589 |  | 28,517,846 | 90\% | 3.37\% | 3.75\% |
| 23 | 267 |  | 22,529,589 |  | 22,984,350 |  | 23,374,449 | 54\% | 2.02\% | 3.75\% |
| 24 | 222 |  | 18,578,286 |  | 19,198,943 |  | 19,274,972 | 89\% | 3.34\% | 3.75\% |
| 25 | 193 |  | 16,500,563 |  | 16,372,331 |  | 17,119,334 | -21\% | -0.78\% | 3.75\% |
| 26 | 161 |  | 13,666,002 |  | 14,063,534 |  | 14,178,477 | 78\% | 2.91\% | 3.75\% |
| 27 | 138 |  | 11,865,648 |  | 12,002,467 |  | 12,310,610 | 31\% | 1.15\% | 3.75\% |
| 28 | 108 |  | 9,315,039 |  | 9,599,468 |  | 9,664,353 | 81\% | 3.05\% | 3.75\% |
| 29 | 81 |  | 7,246,143 |  | 7,373,844 |  | 7,517,873 | 47\% | 1.76\% | 3.75\% |
| 30+ | 69 |  | 6,526,792 |  | 6,501,448 |  | 6,771,547 | -10\% | -0.39\% | 3.75\% |
| Total | 15,232 |  | 1,068,981,748 |  | 1,116,682,795 |  | ,123,134,906 | 88\% | 4.46\% | 5.07\% |

# NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN 

TABLE 12B
10-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Total Salary BOY |  | Estimated Actual <br> Merit Salary EOY |  | Expected Merit Salary EOY |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 390 | \$ | 17,907,362 | \$ | 19,008,970 | \$ | 19,250,414 | 82\% | 6.15\% | 7.50\% |
| 1 | 862 |  | 42,876,994 |  | 44,304,256 |  | 45,663,999 | 51\% | 3.33\% | 6.50\% |
| 2 | 935 |  | 50,177,120 |  | 52,013,243 |  | 52,936,862 | 67\% | 3.66\% | 5.50\% |
| 3 | 1,075 |  | 61,376,774 |  | 63,723,798 |  | 64,752,497 | 70\% | 3.82\% | 5.50\% |
| 4 | 1,033 |  | 63,493,767 |  | 65,904,275 |  | 66,350,987 | 84\% | 3.80\% | 4.50\% |
| 5 | 1,017 |  | 66,434,239 |  | 67,957,830 |  | 68,759,437 | 66\% | 2.29\% | 3.50\% |
| 6 | 949 |  | 65,178,821 |  | 65,742,232 |  | 66,808,292 | 35\% | 0.86\% | 2.50\% |
| 7 | 887 |  | 63,899,440 |  | 64,280,946 |  | 64,857,932 | 40\% | 0.60\% | 1.50\% |
| 8 | 815 |  | 60,449,384 |  | 60,589,974 |  | 60,751,631 | 47\% | 0.23\% | 0.50\% |
| 9 | 715 |  | 53,821,344 |  | 53,833,335 |  | 53,982,808 | 7\% | 0.02\% | 0.30\% |
| 10 | 585 |  | 44,398,803 |  | 44,455,218 |  | 44,443,202 | 127\% | 0.13\% | 0.10\% |
| 11 | 510 |  | 39,505,433 |  | 39,505,433 |  | 39,505,433 |  | 0.00\% | 0.00\% |
| 12 | 439 |  | 34,304,560 |  | 34,304,560 |  | 34,304,560 |  | 0.00\% | 0.00\% |
| 13 | 392 |  | 29,349,981 |  | 29,349,981 |  | 29,349,981 |  | 0.00\% | 0.00\% |
| 14 | 393 |  | 29,179,496 |  | 29,179,496 |  | 29,179,496 |  | 0.00\% | 0.00\% |
| 15 | 389 |  | 29,713,476 |  | 29,713,476 |  | 29,713,476 |  | 0.00\% | 0.00\% |
| 16 | 380 |  | 29,703,726 |  | 29,703,726 |  | 29,703,726 |  | 0.00\% | 0.00\% |
| 17 | 386 |  | 30,839,446 |  | 30,839,446 |  | 30,839,446 |  | 0.00\% | 0.00\% |
| 18 | 397 |  | 31,365,570 |  | 31,365,570 |  | 31,365,570 |  | 0.00\% | 0.00\% |
| 19 | 397 |  | 32,096,071 |  | 32,096,071 |  | 32,096,071 |  | 0.00\% | 0.00\% |
| 20 | 355 |  | 29,277,261 |  | 29,277,261 |  | 29,277,261 |  | 0.00\% | 0.00\% |
| 21 | 363 |  | 29,917,538 |  | 29,917,538 |  | 29,917,538 |  | 0.00\% | 0.00\% |
| 22 | 329 |  | 27,487,080 |  | 27,487,080 |  | 27,487,080 |  | 0.00\% | 0.00\% |
| 23 | 267 |  | 22,529,589 |  | 22,529,589 |  | 22,529,589 |  | 0.00\% | 0.00\% |
| 24 | 222 |  | 18,578,286 |  | 18,578,286 |  | 18,578,286 |  | 0.00\% | 0.00\% |
| 25 | 193 |  | 16,500,563 |  | 16,500,563 |  | 16,500,563 |  | 0.00\% | 0.00\% |
| 26 | 161 |  | 13,666,002 |  | 13,666,002 |  | 13,666,002 |  | 0.00\% | 0.00\% |
| 27 | 138 |  | 11,865,648 |  | 11,865,648 |  | 11,865,648 |  | 0.00\% | 0.00\% |
| 28 | 108 |  | 9,315,039 |  | 9,315,039 |  | 9,315,039 |  | 0.00\% | 0.00\% |
| 29 | 81 |  | 7,246,143 |  | 7,246,143 |  | 7,246,143 |  | 0.00\% | 0.00\% |
| 30+ | 69 |  | 6,526,792 |  | 6,526,792 |  | 6,526,792 |  | 0.00\% | 0.00\% |
| Total | 15,232 |  | 1,068,981,748 |  | 1,080,781,777 |  | ,087,525,759 | 64\% | 1.10\% | 1.73\% |

The rates for expected merit salary increases are based on actual rates of increase for total salary, adjusted for inflation of $2.43 \%$.
Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

# NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA <br> MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN 

TABLE 12B

| Service | Life Years Exposed | Total Salary BOY |  | Estimated Actual <br> Merit Salary EOY |  | Proposed Merit Salary EOY |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 390 | \$ | 17,907,362 | \$ | 19,008,970 | \$ | 19,250,414 | 82\% | 6.15\% | 7.50\% |
| 1 | 862 |  | 42,876,994 |  | 44,304,256 |  | 44,806,459 | 74\% | 3.33\% | 4.50\% |
| 2 | 935 |  | 50,177,120 |  | 52,013,243 |  | 52,184,205 | 91\% | 3.66\% | 4.00\% |
| 3 | 1,075 |  | 61,376,774 |  | 63,723,798 |  | 63,831,845 | 96\% | 3.82\% | 4.00\% |
| 4 | 1,033 |  | 63,493,767 |  | 65,904,275 |  | 66,033,518 | 95\% | 3.80\% | 4.00\% |
| 5 | 1,017 |  | 66,434,239 |  | 67,957,830 |  | 68,427,266 | 76\% | 2.29\% | 3.00\% |
| 6 | 949 |  | 65,178,821 |  | 65,742,232 |  | 65,830,609 | 86\% | 0.86\% | 1.00\% |
| 7 | 887 |  | 63,899,440 |  | 64,280,946 |  | 64,538,434 | 60\% | 0.60\% | 1.00\% |
| 8 | 815 |  | 60,449,384 |  | 60,589,974 |  | 60,751,631 | 47\% | 0.23\% | 0.50\% |
| 9 | 715 |  | 53,821,344 |  | 53,833,335 |  | 53,982,808 | 7\% | 0.02\% | 0.30\% |
| 10 | 585 |  | 44,398,803 |  | 44,455,218 |  | 44,443,202 | 127\% | 0.13\% | 0.10\% |
| 11 | 510 |  | 39,505,433 |  | 39,505,433 |  | 39,505,433 |  | 0.00\% | 0.00\% |
| 12 | 439 |  | 34,304,560 |  | 34,304,560 |  | 34,304,560 |  | 0.00\% | 0.00\% |
| 13 | 392 |  | 29,349,981 |  | 29,349,981 |  | 29,349,981 |  | 0.00\% | 0.00\% |
| 14 | 393 |  | 29,179,496 |  | 29,179,496 |  | 29,179,496 |  | 0.00\% | 0.00\% |
| 15 | 389 |  | 29,713,476 |  | 29,713,476 |  | 29,713,476 |  | 0.00\% | 0.00\% |
| 16 | 380 |  | 29,703,726 |  | 29,703,726 |  | 29,703,726 |  | 0.00\% | 0.00\% |
| 17 | 386 |  | 30,839,446 |  | 30,839,446 |  | 30,839,446 |  | 0.00\% | 0.00\% |
| 18 | 397 |  | 31,365,570 |  | 31,365,570 |  | 31,365,570 |  | 0.00\% | 0.00\% |
| 19 | 397 |  | 32,096,071 |  | 32,096,071 |  | 32,096,071 |  | 0.00\% | 0.00\% |
| 20 | 355 |  | 29,277,261 |  | 29,277,261 |  | 29,277,261 |  | 0.00\% | 0.00\% |
| 21 | 363 |  | 29,917,538 |  | 29,917,538 |  | 29,917,538 |  | 0.00\% | 0.00\% |
| 22 | 329 |  | 27,487,080 |  | 27,487,080 |  | 27,487,080 |  | 0.00\% | 0.00\% |
| 23 | 267 |  | 22,529,589 |  | 22,529,589 |  | 22,529,589 |  | 0.00\% | 0.00\% |
| 24 | 222 |  | 18,578,286 |  | 18,578,286 |  | 18,578,286 |  | 0.00\% | 0.00\% |
| 25 | 193 |  | 16,500,563 |  | 16,500,563 |  | 16,500,563 |  | 0.00\% | 0.00\% |
| 26 | 161 |  | 13,666,002 |  | 13,666,002 |  | 13,666,002 |  | 0.00\% | 0.00\% |
| 27 | 138 |  | 11,865,648 |  | 11,865,648 |  | 11,865,648 |  | 0.00\% | 0.00\% |
| 28 | 108 |  | 9,315,039 |  | 9,315,039 |  | 9,315,039 |  | 0.00\% | 0.00\% |
| 29 | 81 |  | 7,246,143 |  | 7,246,143 |  | 7,246,143 |  | 0.00\% | 0.00\% |
| 30+ | 69 |  | 6,526,792 |  | 6,526,792 |  | 6,526,792 |  | 0.00\% | 0.00\% |
| Total | 15,232 |  | 1,068,981,748 |  | ,080,781,777 |  | 83,048,091 | 84\% | 1.10\% | 1.32\% |

Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA
TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS
MEN AND WOMEN

| Plan Year | TABLE 12C | Total Salary BOY |  | Actual Salary EOY |  | $\begin{gathered} \text { Expected Salary } \\ \text { EOY } \\ \hline \end{gathered}$ |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending June 30, | Life Years Exposed |  |  | Actual / <br> Expected | $\begin{aligned} & \hline \text { Actual } \\ & (\mathbf{4}) /(\mathbf{3}) \\ & \hline \end{aligned}$ |  |  | Expected $(5) /(3)$ |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (5) | (6) | (7) |
| 2004 | 1,444 | \$ | 87,666,010 | \$ | 92,303,584 | \$ | 92,703,801 | 92\% | 5.29\% | 5.75\% |
| 2005 | 1,562 |  | 96,823,221 |  | 103,544,443 |  | 102,545,954 | 117\% | 6.94\% | 5.91\% |
| 2006 | 1,555 |  | 100,795,468 |  | 105,476,956 |  | 106,593,808 | 81\% | 4.64\% | 5.75\% |
| 2007 | 1,588 |  | 105,207,665 |  | 113,162,664 |  | 111,120,953 | 135\% | 7.56\% | 5.62\% |
| 2008 | 1,571 |  | 110,579,197 |  | 113,794,559 |  | 116,577,414 | 54\% | 2.91\% | 5.42\% |
| 2009 | 1,632 |  | 115,434,656 |  | 123,457,818 |  | 121,592,680 | 130\% | 6.95\% | 5.33\% |
| 2010 | 1,596 |  | 119,177,568 |  | 119,685,098 |  | 125,195,101 | 8\% | 0.43\% | 5.05\% |
| 2011 | 1,544 |  | 115,163,418 |  | 124,203,043 |  | 120,647,170 | 165\% | 7.85\% | 4.76\% |
| 2012 | 1,487 |  | 119,033,503 |  | 120,938,118 |  | 124,426,287 | 35\% | 1.60\% | 4.53\% |
| 2013 | 1,399 |  | 112,396,680 |  | 113,736,616 |  | 117,297,938 | 27\% | 1.19\% | 4.36\% |
| Total | 15,378 |  | 1,082,277,386 |  | 1,130,302,899 |  | 1,138,701,105 | 85\% | 4.44\% | 5.21\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA OVERTIME PAY EXPERIENCE FOR ALL YEARS MEN AND WOMEN

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | 5) | (6) | (7) | (8) |
| 0 | 67 | \$ | 2,969,868 | \$ | 47,069 | \$ | 593,974 | 8\% | 1.58\% | 20.00\% |
| 1 | 142 |  | 6,428,820 |  | 959,582 |  | 1,285,764 | 75\% | 14.93\% | 20.00\% |
| 2 | 183 |  | 8,983,113 |  | 1,474,525 |  | 1,796,623 | 82\% | 16.41\% | 20.00\% |
| 3 | 238 |  | 12,218,737 |  | 2,174,715 |  | 2,443,747 | 89\% | 17.80\% | 20.00\% |
| 4 | 273 |  | 14,901,393 |  | 2,653,768 |  | 2,980,279 | 89\% | 17.81\% | 20.00\% |
| 5 | 357 |  | 20,511,629 |  | 4,077,630 |  | 4,102,326 | 99\% | 19.88\% | 20.00\% |
| 6 | 410 |  | 24,801,436 |  | 5,364,384 |  | 4,960,287 | 108\% | 21.63\% | 20.00\% |
| 7 | 480 |  | 29,952,046 |  | 6,622,768 |  | 5,990,409 | 111\% | 22.11\% | 20.00\% |
| 8 | 499 |  | 31,488,351 |  | 6,953,441 |  | 6,297,670 | 110\% | 22.08\% | 20.00\% |
| 9 | 500 |  | 32,397,491 |  | 7,676,836 |  | 6,479,498 | 118\% | 23.70\% | 20.00\% |
| 10 | 406 |  | 26,532,811 |  | 6,318,496 |  | 5,306,562 | 119\% | 23.81\% | 20.00\% |
| 11 | 313 |  | 21,125,150 |  | 4,217,642 |  | 4,225,030 | 100\% | 19.97\% | 20.00\% |
| 12 | 238 |  | 16,339,125 |  | 2,688,015 |  | 3,267,825 | 82\% | 16.45\% | 20.00\% |
| 13 | 122 |  | 8,128,603 |  | 1,038,882 |  | 1,625,721 | 64\% | 12.78\% | 20.00\% |
| 14 | 108 |  | 7,312,424 |  | 862,919 |  | 1,462,485 | 59\% | 11.80\% | 20.00\% |
| 15 | 107 |  | 7,363,359 |  | 957,251 |  | 1,472,672 | 65\% | 13.00\% | 20.00\% |
| 16 | 97 |  | 6,717,260 |  | 885,923 |  | 1,343,452 | 66\% | 13.19\% | 20.00\% |
| 17 | 105 |  | 7,482,746 |  | 844,392 |  | 1,496,549 | 56\% | 11.28\% | 20.00\% |
| 18 | 121 |  | 8,633,467 |  | 1,114,722 |  | 1,726,693 | 65\% | 12.91\% | 20.00\% |
| 19 | 155 |  | 11,155,479 |  | 1,959,966 |  | 2,231,096 | 88\% | 17.57\% | 20.00\% |
| 20 | 163 |  | 11,926,128 |  | 1,993,944 |  | 2,385,226 | 84\% | 16.72\% | 20.00\% |
| 21 | 160 |  | 11,791,244 |  | 1,620,754 |  | 2,358,249 | 69\% | 13.75\% | 20.00\% |
| 22 | 141 |  | 10,466,287 |  | 1,566,853 |  | 2,093,257 | 75\% | 14.97\% | 20.00\% |
| 23 | 92 |  | 6,891,094 |  | 1,299,560 |  | 1,378,219 | 94\% | 18.86\% | 20.00\% |
| 24 | 82 |  | 6,181,598 |  | 1,384,144 |  | 1,236,320 | 112\% | 22.39\% | 20.00\% |
| 25 | 82 |  | 6,125,608 |  | 1,299,643 |  | 1,225,122 | 106\% | 21.22\% | 20.00\% |
| 26 | 65 |  | 4,811,883 |  | 756,342 |  | 962,377 | 79\% | 15.72\% | 20.00\% |
| 27 | 79 |  | 5,923,973 |  | 904,576 |  | 1,184,795 | 76\% | 15.27\% | 20.00\% |
| 28 | 60 |  | 4,640,612 |  | 718,576 |  | 928,122 | 77\% | 15.48\% | 20.00\% |
| 29 | 54 |  | 4,237,710 |  | 632,756 |  | 847,542 | 75\% | 14.93\% | 20.00\% |
| 30 | 48 |  | 3,694,158 |  | 650,958 |  | 738,832 | 88\% | 17.62\% | 20.00\% |
| 31 | 23 |  | 1,604,392 |  | 235,931 |  | 320,878 | 74\% | 14.71\% | 20.00\% |
| 32 | 22 |  | 1,510,646 |  | 205,616 |  | 302,129 | 68\% | 13.61\% | 20.00\% |
| 33 | 13 |  | 962,508 |  | 37,542 |  | 192,502 | 20\% | 3.90\% | 20.00\% |
| 34 | 4 |  | 391,234 |  | 18,124 |  | 78,247 | 23\% | 4.63\% | 20.00\% |
| 35 | 3 |  | 307,294 |  | 14,113 |  | 61,459 | 23\% | 4.59\% | 20.00\% |
| 36 | 3 |  | 225,329 |  | 683 |  | 45,066 | 2\% | 0.30\% | 20.00\% |
| 37 | 3 |  | 225,329 |  | 1,320 |  | 45,066 | 3\% | 0.59\% | 20.00\% |
| 38 | 3 |  | 288,663 |  | 34,729 |  | 57,733 | 60\% | 12.03\% | 20.00\% |
| 39 | 3 |  | 289,120 |  | 31,515 |  | 57,824 | 55\% | 10.90\% | 20.00\% |
| 40 | 1 |  | 103,796 |  | 17,947 |  | 20,759 | 86\% | 17.29\% | 20.00\% |
| 41 | 1 |  | 100,730 |  | 14,815 |  | 20,146 | 74\% | 14.71\% | 20.00\% |
| 42 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 43 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| Total | 6,026 |  | 388,142,641 |  | 72,333,367 |  | 77,628,528 | 93\% | 18.64\% | 20.00\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA OVERTIME PAY EXPERIENCE FOR ALL YEARS MEN AND WOMEN

TABLE 13A 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | 5) | (6) | (7) | (8) |
| 0 | 67 | \$ | 2,969,868 | \$ | 47,069 | \$ | 593,974 | 8\% | 1.58\% | 20.00\% |
| 1 | 142 |  | 6,428,820 |  | 959,582 |  | 1,285,764 | 75\% | 14.93\% | 20.00\% |
| 2 | 183 |  | 8,983,113 |  | 1,474,525 |  | 1,796,623 | 82\% | 16.41\% | 20.00\% |
| 3 | 238 |  | 12,218,737 |  | 2,174,715 |  | 2,443,747 | 89\% | 17.80\% | 20.00\% |
| 4 | 273 |  | 14,901,393 |  | 2,653,768 |  | 2,980,279 | 89\% | 17.81\% | 20.00\% |
| 5 | 357 |  | 20,511,629 |  | 4,077,630 |  | 4,102,326 | 99\% | 19.88\% | 20.00\% |
| 6 | 410 |  | 24,801,436 |  | 5,364,384 |  | 4,960,287 | 108\% | 21.63\% | 20.00\% |
| 7 | 480 |  | 29,952,046 |  | 6,622,768 |  | 5,990,409 | 111\% | 22.11\% | 20.00\% |
| 8 | 499 |  | 31,488,351 |  | 6,953,441 |  | 6,297,670 | 110\% | 22.08\% | 20.00\% |
| 9 | 500 |  | 32,397,491 |  | 7,676,836 |  | 6,479,498 | 118\% | 23.70\% | 20.00\% |
| 10 | 406 |  | 26,532,811 |  | 6,318,496 |  | 5,306,562 | 119\% | 23.81\% | 20.00\% |
| 11 | 313 |  | 21,125,150 |  | 4,217,642 |  | 4,225,030 | 100\% | 19.97\% | 20.00\% |
| 12 | 238 |  | 16,339,125 |  | 2,688,015 |  | 3,267,825 | 82\% | 16.45\% | 20.00\% |
| 13 | 122 |  | 8,128,603 |  | 1,038,882 |  | 1,625,721 | 64\% | 12.78\% | 20.00\% |
| 14 | 108 |  | 7,312,424 |  | 862,919 |  | 1,462,485 | 59\% | 11.80\% | 20.00\% |
| 15 | 107 |  | 7,363,359 |  | 957,251 |  | 1,472,672 | 65\% | 13.00\% | 20.00\% |
| 16 | 97 |  | 6,717,260 |  | 885,923 |  | 1,343,452 | 66\% | 13.19\% | 20.00\% |
| 17 | 105 |  | 7,482,746 |  | 844,392 |  | 1,496,549 | 56\% | 11.28\% | 20.00\% |
| 18 | 121 |  | 8,633,467 |  | 1,114,722 |  | 1,726,693 | 65\% | 12.91\% | 20.00\% |
| 19 | 155 |  | 11,155,479 |  | 1,959,966 |  | 2,231,096 | 88\% | 17.57\% | 20.00\% |
| 20 | 163 |  | 11,926,128 |  | 1,993,944 |  | 2,385,226 | 84\% | 16.72\% | 20.00\% |
| 21 | 160 |  | 11,791,244 |  | 1,620,754 |  | 2,358,249 | 69\% | 13.75\% | 20.00\% |
| 22 | 141 |  | 10,466,287 |  | 1,566,853 |  | 2,093,257 | 75\% | 14.97\% | 20.00\% |
| 23 | 92 |  | 6,891,094 |  | 1,299,560 |  | 1,378,219 | 94\% | 18.86\% | 20.00\% |
| 24 | 82 |  | 6,181,598 |  | 1,384,144 |  | 1,236,320 | 112\% | 22.39\% | 20.00\% |
| 25 | 82 |  | 6,125,608 |  | 1,299,643 |  | 1,225,122 | 106\% | 21.22\% | 20.00\% |
| 26 | 65 |  | 4,811,883 |  | 756,342 |  | 962,377 | 79\% | 15.72\% | 20.00\% |
| 27 | 79 |  | 5,923,973 |  | 904,576 |  | 1,184,795 | 76\% | 15.27\% | 20.00\% |
| 28 | 60 |  | 4,640,612 |  | 718,576 |  | 928,122 | 77\% | 15.48\% | 20.00\% |
| 29 | 54 |  | 4,237,710 |  | 632,756 |  | 847,542 | 75\% | 14.93\% | 20.00\% |
| 30 | 48 |  | 3,694,158 |  | 650,958 |  | 738,832 | 88\% | 17.62\% | 20.00\% |
| 31 | 23 |  | 1,604,392 |  | 235,931 |  | 320,878 | 74\% | 14.71\% | 20.00\% |
| 32 | 22 |  | 1,510,646 |  | 205,616 |  | 302,129 | 68\% | 13.61\% | 20.00\% |
| 33 | 13 |  | 962,508 |  | 37,542 |  | 192,502 | 20\% | 3.90\% | 20.00\% |
| 34 | 4 |  | 391,234 |  | 18,124 |  | 78,247 | 23\% | 4.63\% | 20.00\% |
| 35 | 3 |  | 307,294 |  | 14,113 |  | 61,459 | 23\% | 4.59\% | 20.00\% |
| 36 | 3 |  | 225,329 |  | 683 |  | 45,066 | 2\% | 0.30\% | 20.00\% |
| 37 | 3 |  | 225,329 |  | 1,320 |  | 45,066 | 3\% | 0.59\% | 20.00\% |
| 38 | 3 |  | 288,663 |  | 34,729 |  | 57,733 | 60\% | 12.03\% | 20.00\% |
| 39 | 3 |  | 289,120 |  | 31,515 |  | 57,824 | 55\% | 10.90\% | 20.00\% |
| 40 | 1 |  | 103,796 |  | 17,947 |  | 20,759 | 86\% | 17.29\% | 20.00\% |
| 41 | 1 |  | 100,730 |  | 14,815 |  | 20,146 | 74\% | 14.71\% | 20.00\% |
| 42 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 43 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| Total | 6,026 |  | 388,142,641 |  | 72,333,367 |  | 77,628,528 | 93\% | 18.64\% | 20.00\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA OVERTIME PAY EXPERIENCE BEFORE SERVICE RETIREMENT MEN AND WOMEN

TABLE 13B 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  | 0.00\% | 20.00\% |
| 1 | 0 |  | - |  | - |  | - |  | 0.00\% | 20.00\% |
| 2 | 0 |  | - |  | - |  | - |  | 0.00\% | 20.00\% |
| 3 | 0 |  | - |  | - |  | - |  | 0.00\% | 20.00\% |
| 4 | 1 | \$ | 83,290 |  | - | \$ | 16,658 |  | 0.00\% | 20.00\% |
| 5 |  |  | 33,431 |  | - |  | 6,686 |  | 0.00\% | 20.00\% |
| 6 | 1 |  | 81,741 |  | - |  | 16,348 |  | 0.00\% | 20.00\% |
| 7 | 1 |  | 60,200 |  | - |  | 12,040 |  | 0.00\% | 20.00\% |
| 8 | 2 |  | 187,086 |  | - |  | 37,417 |  | 0.00\% | 20.00\% |
| 9 | 10 |  | 670,729 | \$ | 7,357 |  | 134,146 | 5\% | 1.10\% | 20.00\% |
| 10 | 8 |  | 516,773 |  | 19,267 |  | 103,355 | 19\% | 3.73\% | 20.00\% |
| 11 | 3 |  | 246,166 |  | 8,485 |  | 49,233 | 17\% | 3.45\% | 20.00\% |
| 12 | 6 |  | 444,600 |  | 49,452 |  | 88,920 | 56\% | 11.12\% | 20.00\% |
| 13 | 3 |  | 170,027 |  | 4,837 |  | 34,005 | 14\% | 2.84\% | 20.00\% |
| 14 | 8 |  | 498,489 |  | 34,765 |  | 99,698 | 35\% | 6.97\% | 20.00\% |
| 15 | 4 |  | 328,497 |  | , |  | 65,699 |  | 0.00\% | 20.00\% |
| 16 | 4 |  | 336,346 |  | - |  | 67,269 |  | 0.00\% | 20.00\% |
| 17 | 5 |  | 494,648 |  | 20,958 |  | 98,930 | 21\% | 4.24\% | 20.00\% |
| 18 | 7 |  | 490,908 |  | 87,347 |  | 98,182 | 89\% | 17.79\% | 20.00\% |
| 19 | 7 |  | 517,589 |  | 68,872 |  | 103,518 | 67\% | 13.31\% | 20.00\% |
| 20 | 14 |  | 947,998 |  | 270,682 |  | 189,600 | 143\% | 28.55\% | 20.00\% |
| 21 | 9 |  | 630,365 |  | 157,309 |  | 126,073 | 125\% | 24.96\% | 20.00\% |
| 22 | 6 |  | 431,441 |  | 81,935 |  | 86,288 | 95\% | 18.99\% | 20.00\% |
| 23 | 10 |  | 773,856 |  | 167,877 |  | 154,771 | 108\% | 21.69\% | 20.00\% |
| 24 | 12 |  | 901,076 |  | 334,567 |  | 180,215 | 186\% | 37.13\% | 20.00\% |
| 25 | 6 |  | 429,648 |  | 103,049 |  | 85,930 | 120\% | 23.98\% | 20.00\% |
| 26 | 11 |  | 744,511 |  | 240,657 |  | 148,902 | 162\% | 32.32\% | 20.00\% |
| 27 | 6 |  | 449,966 |  | 152,934 |  | 89,993 | 170\% | 33.99\% | 20.00\% |
| 28 | 11 |  | 853,722 |  | 211,751 |  | 170,744 | 124\% | 24.80\% | 20.00\% |
| 29 | 7 |  | 515,268 |  | 68,412 |  | 103,054 | 66\% | 13.28\% | 20.00\% |
| 30 | 10 |  | 722,823 |  | 118,075 |  | 144,565 | 82\% | 16.34\% | 20.00\% |
| 31 | 7 |  | 582,798 |  | 163,905 |  | 116,560 | 141\% | 28.12\% | 20.00\% |
| 32 | 3 |  | 211,238 |  | 17,782 |  | 42,248 | 42\% | 8.42\% | 20.00\% |
| 33 | 3 |  | 202,965 |  | 55,441 |  | 40,593 | 137\% | 27.32\% | 20.00\% |
| 34 | 3 |  | 242,642 |  | 55, |  | 48,528 |  | 0.00\% | 20.00\% |
| 35 | 0 |  | 2,64 |  | - |  | , |  | 0.00\% | 20.00\% |
| 36 | 0 |  | - |  | - |  | - |  | 0.00\% | 20.00\% |
| 37 | 0 |  | - |  | - |  | - |  | 0.00\% | 20.00\% |
| 38 | 0 |  | - |  | - |  | - |  | 0.00\% | 20.00\% |
| 39 | 0 |  | - |  | - |  | - |  | 0.00\% | 20.00\% |
| 40 | 0 |  | - |  | - |  | - |  | 0.00\% | 20.00\% |
| 41 | 0 |  | - |  | - |  | - |  | 0.00\% | 20.00\% |
| 42 | 0 |  | - |  | - |  | - |  | 0.00\% | 20.00\% |
| 43 | 0 |  | - |  | - |  | - |  | 0.00\% | 20.00\% |
| 44 | 0 |  |  |  | - |  | - |  | 0.00\% | 20.00\% |
| 45 | 1 |  | 65,859 |  | 50 |  | 13,172 | 0\% | 0.08\% | 20.00\% |
| Total | 190 |  | 13,866,692 |  | 2,445,766 |  | 2,773,338 | 88\% | 17.64\% | 20.00\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA OVERTIME PAY EXPERIENCE BEFORE SERVICE RETIREMENT MEN AND WOMEN

TABLE 13B 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  | 0.00\% | 22.00\% |
| 1 | 0 |  | - |  | - |  | - |  | 0.00\% | 22.00\% |
| 2 | 0 |  | - |  | - |  | - |  | 0.00\% | 22.00\% |
| 3 | 0 |  | - |  | - |  | - |  | 0.00\% | 22.00\% |
| 4 | 1 | \$ | 83,290 |  | - | \$ | 18,324 |  | 0.00\% | 22.00\% |
| 5 |  |  | 33,431 |  | - |  | 7,355 |  | 0.00\% | 22.00\% |
| 6 | 1 |  | 81,741 |  | - |  | 17,983 |  | 0.00\% | 22.00\% |
| 7 | 1 |  | 60,200 |  | - |  | 13,244 |  | 0.00\% | 22.00\% |
| 8 | 2 |  | 187,086 |  | - |  | 41,159 |  | 0.00\% | 22.00\% |
| 9 | 10 |  | 670,729 | \$ | 7,357 |  | 147,560 | 5\% | 1.10\% | 22.00\% |
| 10 | 8 |  | 516,773 |  | 19,267 |  | 113,690 | 17\% | 3.73\% | 22.00\% |
| 11 | 3 |  | 246,166 |  | 8,485 |  | 54,156 | 16\% | 3.45\% | 22.00\% |
| 12 | 6 |  | 444,600 |  | 49,452 |  | 97,812 | 51\% | 11.12\% | 22.00\% |
| 13 | 3 |  | 170,027 |  | 4,837 |  | 37,406 | 13\% | 2.84\% | 22.00\% |
| 14 | 8 |  | 498,489 |  | 34,765 |  | 109,668 | 32\% | 6.97\% | 22.00\% |
| 15 | 4 |  | 328,497 |  | , |  | 72,269 |  | 0.00\% | 22.00\% |
| 16 | 4 |  | 336,346 |  | - |  | 73,996 |  | 0.00\% | 22.00\% |
| 17 | 5 |  | 494,648 |  | 20,958 |  | 108,823 | 19\% | 4.24\% | 22.00\% |
| 18 | 7 |  | 490,908 |  | 87,347 |  | 108,000 | 81\% | 17.79\% | 22.00\% |
| 19 | 7 |  | 517,589 |  | 68,872 |  | 113,870 | 60\% | 13.31\% | 22.00\% |
| 20 | 14 |  | 947,998 |  | 270,682 |  | 208,560 | 130\% | 28.55\% | 22.00\% |
| 21 | 9 |  | 630,365 |  | 157,309 |  | 138,680 | 113\% | 24.96\% | 22.00\% |
| 22 | 6 |  | 431,441 |  | 81,935 |  | 94,917 | 86\% | 18.99\% | 22.00\% |
| 23 | 10 |  | 773,856 |  | 167,877 |  | 170,248 | 99\% | 21.69\% | 22.00\% |
| 24 | 12 |  | 901,076 |  | 334,567 |  | 198,237 | 169\% | 37.13\% | 22.00\% |
| 25 | 6 |  | 429,648 |  | 103,049 |  | 94,522 | 109\% | 23.98\% | 22.00\% |
| 26 | 11 |  | 744,511 |  | 240,657 |  | 163,792 | 147\% | 32.32\% | 22.00\% |
| 27 | 6 |  | 449,966 |  | 152,934 |  | 98,992 | 154\% | 33.99\% | 22.00\% |
| 28 | 11 |  | 853,722 |  | 211,751 |  | 187,819 | 113\% | 24.80\% | 22.00\% |
| 29 | 7 |  | 515,268 |  | 68,412 |  | 113,359 | 60\% | 13.28\% | 22.00\% |
| 30 | 10 |  | 722,823 |  | 118,075 |  | 159,021 | 74\% | 16.34\% | 22.00\% |
| 31 | 7 |  | 582,798 |  | 163,905 |  | 128,215 | 128\% | 28.12\% | 22.00\% |
| 32 | 3 |  | 211,238 |  | 17,782 |  | 46,472 | 38\% | 8.42\% | 22.00\% |
| 33 | 3 |  | 202,965 |  | 55,441 |  | 44,652 | 124\% | 27.32\% | 22.00\% |
| 34 | 3 |  | 242,642 |  | 55, |  | 53,381 |  | 0.00\% | 22.00\% |
| 35 | 0 |  | 2,64 |  | - |  | 53,381 |  | 0.00\% | 22.00\% |
| 36 | 0 |  | - |  | - |  | - |  | 0.00\% | 22.00\% |
| 37 | 0 |  | - |  | - |  | - |  | 0.00\% | 22.00\% |
| 38 | 0 |  | - |  | - |  | - |  | 0.00\% | 22.00\% |
| 39 | 0 |  | - |  | - |  | - |  | 0.00\% | 22.00\% |
| 40 | 0 |  | - |  | - |  | - |  | 0.00\% | 22.00\% |
| 41 | 0 |  | - |  | - |  | - |  | 0.00\% | 22.00\% |
| 42 | 0 |  | - |  | - |  | - |  | 0.00\% | 22.00\% |
| 43 | 0 |  | - |  | - |  | - |  | 0.00\% | 22.00\% |
| 44 | 0 |  |  |  | - |  | - |  | 0.00\% | 22.00\% |
| 45 | 1 |  | 65,859 |  | 50 |  | 14,489 | 0\% | 0.08\% | 22.00\% |
| Total | 190 |  | 13,866,692 |  | 2,445,766 |  | 3,050,672 | 80\% | 17.64\% | 22.00\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA OVERTIME PAY EXPERIENCE BEFORE DISABLED RETIREMENT MEN AND WOMEN

TABLE 13C 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / Expected <br> (6) | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  |  | (5) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 1 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 2 | 0 |  | - |  | - |  | - - |  |  | 20.00\% |
| 3 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 4 | 1 |  | 48,362 | \$ | 12,576 | \$ | 9,672 | 130\% | 26.00\% | 20.00\% |
| 5 | 1 |  | 53,869 |  | 5,286 |  | 10,774 | 49\% | 9.81\% | 20.00\% |
| 6 | 0 |  | 53,80 |  | 5 |  | , |  |  | 20.00\% |
| 7 | 1 |  | 50,736 |  | 21,267 |  | 10,147 | 210\% | 41.92\% | 20.00\% |
| 8 | 1 |  | 73,744 |  | - |  | 14,749 |  |  | 20.00\% |
| 9 | 0 |  | , |  | - |  | , |  |  | 20.00\% |
| 10 | 1 |  | 60,691 |  | 12,599 |  | 12,138 | 104\% | 20.76\% | 20.00\% |
| 11 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 12 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 13 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 14 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 15 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 16 | 1 |  | 46,847 |  | - |  | 9,369 |  |  | 20.00\% |
| 17 | 1 |  | 49,840 |  | - |  | 9,968 |  |  | 20.00\% |
| 18 | 0 |  |  |  | - |  | , |  |  | 20.00\% |
| 19 | 1 |  | 62,730 |  | 11,331 |  | 12,546 | 90\% | 18.06\% | 20.00\% |
| 20 | 1 |  | 58,542 |  | , |  | 11,708 |  |  | 20.00\% |
| 21 | 0 |  | 58,5 |  | - |  | 1,708 |  |  | 20.00\% |
| 22 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 23 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 24 | 1 |  | 77,681 |  | 15,039 |  | 15,536 | 97\% | 19.36\% | 20.00\% |
| 25 | 0 |  | 7,681 |  | 15,03 |  | 15,536 |  |  | 20.00\% |
| 26 |  |  | 61,012 |  | 8,868 |  | 12,202 | 73\% | 14.53\% | 20.00\% |
| 27 | 0 |  | , |  | - |  | , |  |  | 20.00\% |
| 28 | 1 |  | 54,683 |  | - |  | 10,937 |  |  | 20.00\% |
| 29 | 0 |  | 54,683 |  | - |  | 10,937 |  |  | 20.00\% |
| 30 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 31 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 32 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 33 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 34 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 35 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 36 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 37 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 38 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 39 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 40 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 41 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 42 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 43 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| Total | 12 |  | 698,735 |  | 86,966 |  | 139,747 | $62 \%$ | 12.45\% | 20.00\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA OVERTIME PAY EXPERIENCE BEFORE DISABLED RETIREMENT MEN AND WOMEN

TABLE 13C 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual / <br> Proposed <br> (6) | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  |  | (5) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 1 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 2 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 3 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 4 | 1 | \$ | 48,362 | \$ | 12,576 | \$ | 9,672 | 130\% | 26.00\% | 20.00\% |
| 5 | 1 |  | 53,869 |  | 5,286 |  | 10,774 | 49\% | 9.81\% | 20.00\% |
| 6 | 0 |  | 53,86 |  | 5 |  | , |  |  | 20.00\% |
| 7 | 1 |  | 50,736 |  | 21,267 |  | 10,147 | 210\% | 41.92\% | 20.00\% |
| 8 | 1 |  | 73,744 |  | - |  | 14,749 |  |  | 20.00\% |
| 9 | 0 |  | , |  | - |  | 14, |  |  | 20.00\% |
| 10 | 1 |  | 60,691 |  | 12,599 |  | 12,138 | 104\% | 20.76\% | 20.00\% |
| 11 | 0 |  | - |  | - |  |  |  |  | 20.00\% |
| 12 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 13 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 14 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 15 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 16 | 1 |  | 46,847 |  | - |  | 9,369 |  |  | 20.00\% |
| 17 | 1 |  | 49,840 |  | - |  | 9,968 |  |  | 20.00\% |
| 18 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 19 | 1 |  | 62,730 |  | 11,331 |  | 12,546 | 90\% | 18.06\% | 20.00\% |
| 20 | 1 |  | 58,542 |  | 1,331 |  | 11,708 |  |  | 20.00\% |
| 21 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 22 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 23 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 24 | 1 |  | 77,681 |  | 15,039 |  | 15,536 | 97\% | 19.36\% | 20.00\% |
| 25 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 26 | 1 |  | 61,012 |  | 8,868 |  | 12,202 | 73\% | 14.53\% | 20.00\% |
| 27 | 0 |  | , |  | - |  | - |  |  | 20.00\% |
| 28 | 1 |  | 54,683 |  | - |  | 10,937 |  |  | 20.00\% |
| 29 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 30 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 31 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 32 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 33 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 34 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 35 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 36 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 37 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 38 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 39 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 40 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 41 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 42 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 43 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| Total | 12 |  | 698,735 |  | 86,966 |  | 139,747 | 62\% | 12.45\% | 20.00\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA OVERTIME PAY EXPERIENCE FOR ALL YEARS MEN AND WOMEN

TABLE 13A

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 393 | \$ | 14,976,751 | \$ | 367,236 | \$ | 2,995,350 | 12\% | 2.45\% | 20.00\% |
| 1 | 797 |  | 33,049,847 |  | 5,782,149 |  | 6,609,969 | 87\% | 17.50\% | 20.00\% |
| 2 | 937 |  | 41,679,002 |  | 8,955,247 |  | 8,335,800 | 107\% | 21.49\% | 20.00\% |
| 3 | 1,075 |  | 50,974,070 |  | 11,803,136 |  | 10,194,814 | 116\% | 23.16\% | 20.00\% |
| 4 | 1,039 |  | 52,806,088 |  | 12,316,148 |  | 10,561,218 | 117\% | 23.32\% | 20.00\% |
| 5 | 1,028 |  | 55,473,608 |  | 12,433,201 |  | 11,094,722 | 112\% | 22.41\% | 20.00\% |
| 6 | 962 |  | 55,058,327 |  | 12,598,261 |  | 11,011,665 | 114\% | 22.88\% | 20.00\% |
| 7 | 904 |  | 53,957,435 |  | 12,219,207 |  | 10,791,487 | 113\% | 22.65\% | 20.00\% |
| 8 | 824 |  | 50,746,298 |  | 11,039,585 |  | 10,149,260 | 109\% | 21.75\% | 20.00\% |
| 9 | 728 |  | 45,595,426 |  | 9,526,228 |  | 9,119,085 | 104\% | 20.89\% | 20.00\% |
| 10 | 598 |  | 37,865,870 |  | 7,553,184 |  | 7,573,174 | 100\% | 19.95\% | 20.00\% |
| 11 | 508 |  | 32,903,452 |  | 5,792,263 |  | 6,580,690 | 88\% | 17.60\% | 20.00\% |
| 12 | 443 |  | 28,832,179 |  | 4,601,001 |  | 5,766,436 | 80\% | 15.96\% | 20.00\% |
| 13 | 388 |  | 24,221,982 |  | 3,915,886 |  | 4,844,396 | 81\% | 16.17\% | 20.00\% |
| 14 | 389 |  | 24,123,663 |  | 4,417,717 |  | 4,824,733 | 92\% | 18.31\% | 20.00\% |
| 15 | 393 |  | 24,853,798 |  | 5,132,830 |  | 4,970,760 | 103\% | 20.65\% | 20.00\% |
| 16 | 381 |  | 24,719,438 |  | 5,376,496 |  | 4,943,888 | 109\% | 21.75\% | 20.00\% |
| 17 | 381 |  | 25,446,700 |  | 5,629,680 |  | 5,089,340 | 111\% | 22.12\% | 20.00\% |
| 18 | 401 |  | 26,470,122 |  | 6,142,487 |  | 5,294,024 | 116\% | 23.21\% | 20.00\% |
| 19 | 395 |  | 26,531,884 |  | 6,304,965 |  | 5,306,377 | 119\% | 23.76\% | 20.00\% |
| 20 | 365 |  | 25,062,225 |  | 5,532,855 |  | 5,012,445 | 110\% | 22.08\% | 20.00\% |
| 21 | 364 |  | 24,992,079 |  | 5,168,586 |  | 4,998,416 | 103\% | 20.68\% | 20.00\% |
| 22 | 331 |  | 22,966,812 |  | 5,058,595 |  | 4,593,362 | 110\% | 22.03\% | 20.00\% |
| 23 | 268 |  | 18,791,123 |  | 4,428,819 |  | 3,758,225 | 118\% | 23.57\% | 20.00\% |
| 24 | 227 |  | 15,869,168 |  | 3,849,185 |  | 3,173,834 | 121\% | 24.26\% | 20.00\% |
| 25 | 196 |  | 13,909,392 |  | 3,183,246 |  | 2,781,878 | 114\% | 22.89\% | 20.00\% |
| 26 | 164 |  | 11,561,473 |  | 2,297,107 |  | 2,312,295 | 99\% | 19.87\% | 20.00\% |
| 27 | 141 |  | 10,075,487 |  | 1,934,111 |  | 2,015,097 | 96\% | 19.20\% | 20.00\% |
| 28 | 108 |  | 7,762,078 |  | 1,617,211 |  | 1,552,416 | 104\% | 20.83\% | 20.00\% |
| 29 | 81 |  | 6,010,158 |  | 1,039,136 |  | 1,202,032 | 86\% | 17.29\% | 20.00\% |
| 30 | 71 |  | 5,555,409 |  | 795,887 |  | 1,111,082 | 72\% | 14.33\% | 20.00\% |
| 31 | 40 |  | 2,872,747 |  | 383,530 |  | 574,549 | 67\% | 13.35\% | 20.00\% |
| 32 | 37 |  | 2,738,662 |  | 332,233 |  | 547,732 | 61\% | 12.13\% | 20.00\% |
| 33 | 22 |  | 1,579,609 |  | 118,150 |  | 315,922 | 37\% | 7.48\% | 20.00\% |
| 34 | 12 |  | 1,035,349 |  | 106,816 |  | 207,070 | 52\% | 10.32\% | 20.00\% |
| 35 | 9 |  | 777,653 |  | 110,860 |  | 155,531 | 71\% | 14.26\% | 20.00\% |
| 36 | 5 |  | 380,769 |  | 67,991 |  | 76,154 | 89\% | 17.86\% | 20.00\% |
| 37 | 6 |  | 483,820 |  | 44,864 |  | 96,764 | 46\% | 9.27\% | 20.00\% |
| 38 | 3 |  | 288,663 |  | 34,729 |  | 57,733 | 60\% | 12.03\% | 20.00\% |
| 39 | 5 |  | 427,342 |  | 31,515 |  | 85,468 | 37\% | 7.37\% | 20.00\% |
| 40 | 3 |  | 246,164 |  | 17,947 |  | 49,233 | 36\% | 7.29\% | 20.00\% |
| 41 | 3 |  | 253,930 |  | 14,815 |  | 50,786 | 29\% | 5.83\% | 20.00\% |
| 42 | 1 |  | 57,379 |  | - |  | 11,476 |  |  | 20.00\% |
| 43 | 1 |  | 60,868 |  | - |  | 12,174 |  |  | 20.00\% |
| 44 | 1 |  | 54,863 |  | - |  | 10,973 |  |  | 20.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| Total | 15,428 |  | 904,099,158 |  | 188,075,095 |  | 180,819,832 | 104\% | 20.80\% | 20.00\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA OVERTIME PAY EXPERIENCE FOR ALL YEARS MEN AND WOMEN

TABLE 13A

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual/ <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 393 | \$ | 14,976,751 | \$ | 367,236 | \$ | 2,995,350 | 12\% | 2.45\% | 20.00\% |
| 1 | 797 |  | 33,049,847 |  | 5,782,149 |  | 6,609,969 | 87\% | 17.50\% | 20.00\% |
| 2 | 937 |  | 41,679,002 |  | 8,955,247 |  | 8,335,800 | 107\% | 21.49\% | 20.00\% |
| 3 | 1,075 |  | 50,974,070 |  | 11,803,136 |  | 10,194,814 | 116\% | 23.16\% | 20.00\% |
| 4 | 1,039 |  | 52,806,088 |  | 12,316,148 |  | 10,561,218 | 117\% | 23.32\% | 20.00\% |
| 5 | 1,028 |  | 55,473,608 |  | 12,433,201 |  | 11,094,722 | 112\% | 22.41\% | 20.00\% |
| 6 | 962 |  | 55,058,327 |  | 12,598,261 |  | 11,011,665 | 114\% | 22.88\% | 20.00\% |
| 7 | 904 |  | 53,957,435 |  | 12,219,207 |  | 10,791,487 | 113\% | 22.65\% | 20.00\% |
| 8 | 824 |  | 50,746,298 |  | 11,039,585 |  | 10,149,260 | 109\% | 21.75\% | 20.00\% |
| 9 | 728 |  | 45,595,426 |  | 9,526,228 |  | 9,119,085 | 104\% | 20.89\% | 20.00\% |
| 10 | 598 |  | 37,865,870 |  | 7,553,184 |  | 7,573,174 | 100\% | 19.95\% | 20.00\% |
| 11 | 508 |  | 32,903,452 |  | 5,792,263 |  | 6,580,690 | 88\% | 17.60\% | 20.00\% |
| 12 | 443 |  | 28,832,179 |  | 4,601,001 |  | 5,766,436 | 80\% | 15.96\% | 20.00\% |
| 13 | 388 |  | 24,221,982 |  | 3,915,886 |  | 4,844,396 | 81\% | 16.17\% | 20.00\% |
| 14 | 389 |  | 24,123,663 |  | 4,417,717 |  | 4,824,733 | 92\% | 18.31\% | 20.00\% |
| 15 | 393 |  | 24,853,798 |  | 5,132,830 |  | 4,970,760 | 103\% | 20.65\% | 20.00\% |
| 16 | 381 |  | 24,719,438 |  | 5,376,496 |  | 4,943,888 | 109\% | 21.75\% | 20.00\% |
| 17 | 381 |  | 25,446,700 |  | 5,629,680 |  | 5,089,340 | 111\% | 22.12\% | 20.00\% |
| 18 | 401 |  | 26,470,122 |  | 6,142,487 |  | 5,294,024 | 116\% | 23.21\% | 20.00\% |
| 19 | 395 |  | 26,531,884 |  | 6,304,965 |  | 5,306,377 | 119\% | 23.76\% | 20.00\% |
| 20 | 365 |  | 25,062,225 |  | 5,532,855 |  | 5,012,445 | 110\% | 22.08\% | 20.00\% |
| 21 | 364 |  | 24,992,079 |  | 5,168,586 |  | 4,998,416 | 103\% | 20.68\% | 20.00\% |
| 22 | 331 |  | 22,966,812 |  | 5,058,595 |  | 4,593,362 | 110\% | 22.03\% | 20.00\% |
| 23 | 268 |  | 18,791,123 |  | 4,428,819 |  | 3,758,225 | 118\% | 23.57\% | 20.00\% |
| 24 | 227 |  | 15,869,168 |  | 3,849,185 |  | 3,173,834 | 121\% | 24.26\% | 20.00\% |
| 25 | 196 |  | 13,909,392 |  | 3,183,246 |  | 2,781,878 | 114\% | 22.89\% | 20.00\% |
| 26 | 164 |  | 11,561,473 |  | 2,297,107 |  | 2,312,295 | 99\% | 19.87\% | 20.00\% |
| 27 | 141 |  | 10,075,487 |  | 1,934,111 |  | 2,015,097 | 96\% | 19.20\% | 20.00\% |
| 28 | 108 |  | 7,762,078 |  | 1,617,211 |  | 1,552,416 | 104\% | 20.83\% | 20.00\% |
| 29 | 81 |  | 6,010,158 |  | 1,039,136 |  | 1,202,032 | 86\% | 17.29\% | 20.00\% |
| 30 | 71 |  | 5,555,409 |  | 795,887 |  | 1,111,082 | 72\% | 14.33\% | 20.00\% |
| 31 | 40 |  | 2,872,747 |  | 383,530 |  | 574,549 | 67\% | 13.35\% | 20.00\% |
| 32 | 37 |  | 2,738,662 |  | 332,233 |  | 547,732 | 61\% | 12.13\% | 20.00\% |
| 33 | 22 |  | 1,579,609 |  | 118,150 |  | 315,922 | 37\% | 7.48\% | 20.00\% |
| 34 | 12 |  | 1,035,349 |  | 106,816 |  | 207,070 | 52\% | 10.32\% | 20.00\% |
| 35 | 9 |  | 777,653 |  | 110,860 |  | 155,531 | 71\% | 14.26\% | 20.00\% |
| 36 | 5 |  | 380,769 |  | 67,991 |  | 76,154 | 89\% | 17.86\% | 20.00\% |
| 37 | 6 |  | 483,820 |  | 44,864 |  | 96,764 | 46\% | 9.27\% | 20.00\% |
| 38 | 3 |  | 288,663 |  | 34,729 |  | 57,733 | 60\% | 12.03\% | 20.00\% |
| 39 | 5 |  | 427,342 |  | 31,515 |  | 85,468 | 37\% | 7.37\% | 20.00\% |
| 40 | 3 |  | 246,164 |  | 17,947 |  | 49,233 | 36\% | 7.29\% | 20.00\% |
| 41 | 3 |  | 253,930 |  | 14,815 |  | 50,786 | 29\% | 5.83\% | 20.00\% |
| 42 | 1 |  | 57,379 |  | - |  | 11,476 |  |  | 20.00\% |
| 43 | 1 |  | 60,868 |  | - |  | 12,174 |  |  | 20.00\% |
| 44 | 1 |  | 54,863 |  | - |  | 10,973 |  |  | 20.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| Total | 15,428 |  | 904,099,158 |  | 188,075,095 |  | 180,819,832 | 104\% | 20.80\% | 20.00\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA OVERTIME PAY EXPERIENCE BEFORE SERVICE RETIREMENT MEN AND WOMEN

TABLE 13B
10-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) |  | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 1 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 2 | 1 | \$ | 87,557 |  | - | \$ | 17,511 |  |  | 20.00\% |
| 3 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 4 | 3 |  | 147,803 | \$ | 1,440 |  | 29,561 | 5\% | 0.97\% | 20.00\% |
| 5 | 5 |  | 455,218 |  | - |  | 91,044 |  |  | 20.00\% |
| 6 | 3 |  | 221,834 |  | - |  | 44,367 |  |  | 20.00\% |
| 7 | 3 |  | 182,518 |  | - |  | 36,504 |  |  | 20.00\% |
| 8 | 3 |  | 257,128 |  | - |  | 51,426 |  |  | 20.00\% |
| 9 | 14 |  | 988,113 |  | 7,357 |  | 197,623 | 4\% | 0.74\% | 20.00\% |
| 10 | 13 |  | 837,613 |  | 39,169 |  | 167,523 | 23\% | 4.68\% | 20.00\% |
| 11 | 7 |  | 464,088 |  | 8,485 |  | 92,818 | 9\% | 1.83\% | 20.00\% |
| 12 | 8 |  | 586,094 |  | 49,452 |  | 117,219 | 42\% | 8.44\% | 20.00\% |
| 13 | 8 |  | 502,282 |  | 26,744 |  | 100,456 | 27\% | 5.32\% | 20.00\% |
| 14 | 12 |  | 731,257 |  | 87,687 |  | 146,251 | 60\% | 11.99\% | 20.00\% |
| 15 | 7 |  | 613,748 |  | 27,903 |  | 122,750 | 23\% | 4.55\% | 20.00\% |
| 16 | 8 |  | 547,900 |  | 72,400 |  | 109,580 | 66\% | 13.21\% | 20.00\% |
| 17 | 9 |  | 710,072 |  | 84,110 |  | 142,014 | 59\% | 11.85\% | 20.00\% |
| 18 | 15 |  | 948,307 |  | 361,633 |  | 189,661 | 191\% | 38.13\% | 20.00\% |
| 19 | 26 |  | 1,656,002 |  | 660,535 |  | 331,200 | 199\% | 39.89\% | 20.00\% |
| 20 | 48 |  | 3,019,070 |  | 1,203,211 |  | 603,814 | 199\% | 39.85\% | 20.00\% |
| 21 | 42 |  | 2,680,411 |  | 1,034,142 |  | 536,082 | 193\% | 38.58\% | 20.00\% |
| 22 | 24 |  | 1,571,300 |  | 652,925 |  | 314,260 | 208\% | 41.55\% | 20.00\% |
| 23 | 27 |  | 1,776,533 |  | 544,813 |  | 355,307 | 153\% | 30.67\% | 20.00\% |
| 24 | 29 |  | 2,073,198 |  | 707,624 |  | 414,640 | 171\% | 34.13\% | 20.00\% |
| 25 | 19 |  | 1,344,883 |  | 608,420 |  | 268,977 | 226\% | 45.24\% | 20.00\% |
| 26 | 27 |  | 1,743,447 |  | 697,184 |  | 348,689 | 200\% | 39.99\% | 20.00\% |
| 27 | 10 |  | 688,608 |  | 242,587 |  | 137,722 | 176\% | 35.23\% | 20.00\% |
| 28 | 14 |  | 1,043,023 |  | 226,926 |  | 208,605 | 109\% | 21.76\% | 20.00\% |
| 29 | 11 |  | 803,909 |  | 285,871 |  | 160,782 | 178\% | 35.56\% | 20.00\% |
| 30 | 17 |  | 1,202,358 |  | 286,727 |  | 240,472 | 119\% | 23.85\% | 20.00\% |
| 31 | 12 |  | 1,011,350 |  | 210,551 |  | 202,270 | 104\% | 20.82\% | 20.00\% |
| 32 | 5 |  | 322,987 |  | 19,127 |  | 64,597 | 30\% | 5.92\% | 20.00\% |
| 33 | 9 |  | 696,698 |  | 124,918 |  | 139,340 | 90\% | 17.93\% | 20.00\% |
| 34 | 4 |  | 295,281 |  | 14,539 |  | 59,056 | 25\% | 4.92\% | 20.00\% |
| 35 | 2 |  | 158,109 |  | 12,394 |  | 31,622 | 39\% | 7.84\% | 20.00\% |
| 36 | 2 |  | 158,499 |  | 24,028 |  | 31,700 | 76\% | 15.16\% | 20.00\% |
| 37 | 1 |  | 57,271 |  | 1,313 |  | 11,454 | 11\% | 2.29\% | 20.00\% |
| 38 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 39 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 40 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 41 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 42 | 1 |  | 83,750 |  | - |  | 16,750 |  |  | 20.00\% |
| 43 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 45 | 1 |  | 65,859 |  | 50 |  | 13,172 | 0\% | 0.08\% | 20.00\% |
| Total | 450 |  | 30,734,073 |  | 8,324,265 |  | 6,146,815 | 135\% | 27.08\% | 20.00\% |

NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA OVERTIME PAY EXPERIENCE BEFORE SERVICE RETIREMENT MEN AND WOMEN

## TABLE 13B

10-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  |  | 22.00\% |
| 1 | 0 |  | - |  | - |  | - |  |  | 22.00\% |
| 2 | 1 | \$ | 87,557 |  | - | \$ | 19,262 |  |  | 22.00\% |
| 3 | 0 |  | - |  | - |  | - |  |  | 22.00\% |
| 4 | 3 |  | 147,803 | \$ | 1,440 |  | 32,517 | 4\% | 0.97\% | 22.00\% |
| 5 | 5 |  | 455,218 |  | - |  | 100,148 |  |  | 22.00\% |
| 6 | 3 |  | 221,834 |  | - |  | 48,804 |  |  | 22.00\% |
| 7 | 3 |  | 182,518 |  | - |  | 40,154 |  |  | 22.00\% |
| 8 | 3 |  | 257,128 |  | - |  | 56,568 |  |  | 22.00\% |
| 9 | 14 |  | 988,113 |  | 7,357 |  | 217,385 | 3\% | 0.74\% | 22.00\% |
| 10 | 13 |  | 837,613 |  | 39,169 |  | 184,275 | 21\% | 4.68\% | 22.00\% |
| 11 | 7 |  | 464,088 |  | 8,485 |  | 102,099 | 8\% | 1.83\% | 22.00\% |
| 12 | 8 |  | 586,094 |  | 49,452 |  | 128,941 | 38\% | 8.44\% | 22.00\% |
| 13 | 8 |  | 502,282 |  | 26,744 |  | 110,502 | 24\% | 5.32\% | 22.00\% |
| 14 | 12 |  | 731,257 |  | 87,687 |  | 160,876 | 55\% | 11.99\% | 22.00\% |
| 15 | 7 |  | 613,748 |  | 27,903 |  | 135,024 | 21\% | 4.55\% | 22.00\% |
| 16 | 8 |  | 547,900 |  | 72,400 |  | 120,538 | 60\% | 13.21\% | 22.00\% |
| 17 | 9 |  | 710,072 |  | 84,110 |  | 156,216 | 54\% | 11.85\% | 22.00\% |
| 18 | 15 |  | 948,307 |  | 361,633 |  | 208,627 | 173\% | 38.13\% | 22.00\% |
| 19 | 26 |  | 1,656,002 |  | 660,535 |  | 364,320 | 181\% | 39.89\% | 22.00\% |
| 20 | 48 |  | 3,019,070 |  | 1,203,211 |  | 664,195 | 181\% | 39.85\% | 22.00\% |
| 21 | 42 |  | 2,680,411 |  | 1,034,142 |  | 589,690 | 175\% | 38.58\% | 22.00\% |
| 22 | 24 |  | 1,571,300 |  | 652,925 |  | 345,686 | 189\% | 41.55\% | 22.00\% |
| 23 | 27 |  | 1,776,533 |  | 544,813 |  | 390,837 | 139\% | 30.67\% | 22.00\% |
| 24 | 29 |  | 2,073,198 |  | 707,624 |  | 456,103 | 155\% | 34.13\% | 22.00\% |
| 25 | 19 |  | 1,344,883 |  | 608,420 |  | 295,874 | 206\% | 45.24\% | 22.00\% |
| 26 | 27 |  | 1,743,447 |  | 697,184 |  | 383,558 | 182\% | 39.99\% | 22.00\% |
| 27 | 10 |  | 688,608 |  | 242,587 |  | 151,494 | 160\% | 35.23\% | 22.00\% |
| 28 | 14 |  | 1,043,023 |  | 226,926 |  | 229,465 | 99\% | 21.76\% | 22.00\% |
| 29 | 11 |  | 803,909 |  | 285,871 |  | 176,860 | 162\% | 35.56\% | 22.00\% |
| 30 | 17 |  | 1,202,358 |  | 286,727 |  | 264,519 | 108\% | 23.85\% | 22.00\% |
| 31 | 12 |  | 1,011,350 |  | 210,551 |  | 222,497 | 95\% | 20.82\% | 22.00\% |
| 32 | 5 |  | 322,987 |  | 19,127 |  | 71,057 | 27\% | 5.92\% | 22.00\% |
| 33 | 9 |  | 696,698 |  | 124,918 |  | 153,274 | 81\% | 17.93\% | 22.00\% |
| 34 | 4 |  | 295,281 |  | 14,539 |  | 64,962 | 22\% | 4.92\% | 22.00\% |
| 35 | 2 |  | 158,109 |  | 12,394 |  | 34,784 | 36\% | 7.84\% | 22.00\% |
| 36 | 2 |  | 158,499 |  | 24,028 |  | 34,870 | 69\% | 15.16\% | 22.00\% |
| 37 | 1 |  | 57,271 |  | 1,313 |  | 12,600 | 10\% | 2.29\% | 22.00\% |
| 38 | 0 |  | - |  | - |  | - |  |  | 22.00\% |
| 39 | 0 |  | - |  | - |  | - |  |  | 22.00\% |
| 40 | 0 |  | - |  | - |  | - |  |  | 22.00\% |
| 41 | 0 |  | - |  | - |  | - |  |  | 22.00\% |
| 42 | 1 |  | 83,750 |  | - |  | 18,425 |  |  | 22.00\% |
| 43 | 0 |  | - |  | - |  | - |  |  | 22.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 22.00\% |
| 45 | 1 |  | 65,859 |  | 50 |  | 14,489 | 0\% | 0.08\% | 22.00\% |
| Total | 450 |  | 30,734,073 |  | 8,324,265 |  | 6,761,496 | 123\% | 27.08\% | 22.00\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA OVERTIME PAY EXPERIENCE BEFORE DISABLED RETIREMENT MEN AND WOMEN

TABLE 13C 10-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 1 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 2 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 3 | 1 | \$ | 41,758 | \$ | 1,633 | \$ | 8,352 | 20\% | 3.91\% | 20.00\% |
| 4 | 3 |  | 126,829 |  | 20,670 |  | 25,366 | 81\% | 16.30\% | 20.00\% |
| 5 | 1 |  | 53,869 |  | 5,286 |  | 10,774 | 49\% | 9.81\% | 20.00\% |
| 6 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 7 | 2 |  | 102,600 |  | 23,301 |  | 20,520 | 114\% | 22.71\% | 20.00\% |
| 8 | 1 |  | 73,744 |  | - |  | 14,749 |  |  | 20.00\% |
| 9 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 10 | 3 |  | 164,682 |  | 31,041 |  | 32,936 | 94\% | 18.85\% | 20.00\% |
| 11 | 1 |  | 28,350 |  | - |  | 5,670 |  |  | 20.00\% |
| 12 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 13 | 2 |  | 97,393 |  | 35,737 |  | 19,479 | 183\% | 36.69\% | 20.00\% |
| 14 | 2 |  | 103,238 |  | 18,636 |  | 20,648 | 90\% | 18.05\% | 20.00\% |
| 15 | 1 |  | 48,198 |  | 1,015 |  | 9,640 | 11\% | 2.11\% | 20.00\% |
| 16 | 2 |  | 104,482 |  | 3,981 |  | 20,896 | 19\% | 3.81\% | 20.00\% |
| 17 | 1 |  | 49,840 |  | - |  | 9,968 |  |  | 20.00\% |
| 18 | 2 |  | 116,194 |  | 22,062 |  | 23,239 | 95\% | 18.99\% | 20.00\% |
| 19 | 2 |  | 113,532 |  | 24,184 |  | 22,706 | 107\% | 21.30\% | 20.00\% |
| 20 | 3 |  | 212,344 |  | 7,302 |  | 42,469 | 17\% | 3.44\% | 20.00\% |
| 21 | 1 |  | 62,882 |  | 4,150 |  | 12,576 | 33\% | 6.60\% | 20.00\% |
| 22 | 2 |  | 114,253 |  | 38,636 |  | 22,851 | 169\% | 33.82\% | 20.00\% |
| 23 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 24 | 1 |  | 77,681 |  | 15,039 |  | 15,536 | 97\% | 19.36\% | 20.00\% |
| 25 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 26 | 1 |  | 61,012 |  | 8,868 |  | 12,202 | 73\% | 14.53\% | 20.00\% |
| 27 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 28 | 1 |  | 54,683 |  | - |  | 10,937 |  |  | 20.00\% |
| 29 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 30 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 31 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 32 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 33 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 34 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 35 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 36 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 37 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 38 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 39 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 40 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 41 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 42 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 43 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| Total | 33 |  | 1,807,562 |  | 261,541 |  | 361,512 | $72 \%$ | 14.47\% | 20.00\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA OVERTIME PAY EXPERIENCE BEFORE DISABLED RETIREMENT

 MEN AND WOMENTABLE 13C 10-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 1 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 2 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 3 | 1 | \$ | 41,758 | \$ | 1,633 | \$ | 8,352 | 20\% | 3.91\% | 20.00\% |
| 4 | 3 |  | 126,829 |  | 20,670 |  | 25,366 | 81\% | 16.30\% | 20.00\% |
| 5 | 1 |  | 53,869 |  | 5,286 |  | 10,774 | 49\% | 9.81\% | 20.00\% |
| 6 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 7 | 2 |  | 102,600 |  | 23,301 |  | 20,520 | 114\% | 22.71\% | 20.00\% |
| 8 | 1 |  | 73,744 |  | - |  | 14,749 |  |  | 20.00\% |
| 9 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 10 | 3 |  | 164,682 |  | 31,041 |  | 32,936 | 94\% | 18.85\% | 20.00\% |
| 11 | 1 |  | 28,350 |  | - |  | 5,670 |  |  | 20.00\% |
| 12 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 13 | 2 |  | 97,393 |  | 35,737 |  | 19,479 | 183\% | 36.69\% | 20.00\% |
| 14 | 2 |  | 103,238 |  | 18,636 |  | 20,648 | 90\% | 18.05\% | 20.00\% |
| 15 | 1 |  | 48,198 |  | 1,015 |  | 9,640 | 11\% | 2.11\% | 20.00\% |
| 16 | 2 |  | 104,482 |  | 3,981 |  | 20,896 | 19\% | 3.81\% | 20.00\% |
| 17 | 1 |  | 49,840 |  | - |  | 9,968 |  |  | 20.00\% |
| 18 | 2 |  | 116,194 |  | 22,062 |  | 23,239 | 95\% | 18.99\% | 20.00\% |
| 19 | 2 |  | 113,532 |  | 24,184 |  | 22,706 | 107\% | 21.30\% | 20.00\% |
| 20 | 3 |  | 212,344 |  | 7,302 |  | 42,469 | 17\% | 3.44\% | 20.00\% |
| 21 | 1 |  | 62,882 |  | 4,150 |  | 12,576 | 33\% | 6.60\% | 20.00\% |
| 22 | 2 |  | 114,253 |  | 38,636 |  | 22,851 | 169\% | 33.82\% | 20.00\% |
| 23 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 24 | 1 |  | 77,681 |  | 15,039 |  | 15,536 | 97\% | 19.36\% | 20.00\% |
| 25 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 26 | 1 |  | 61,012 |  | 8,868 |  | 12,202 | 73\% | 14.53\% | 20.00\% |
| 27 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 28 | 1 |  | 54,683 |  | - |  | 10,937 |  |  | 20.00\% |
| 29 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 30 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 31 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 32 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 33 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 34 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 35 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 36 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 37 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 38 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 39 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 40 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 41 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 42 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 43 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| Total | 33 |  | 1,807,562 |  | 261,541 |  | 361,512 | 72\% | 14.47\% | 20.00\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - TBTA

 OVERTIME PAY EXPERIENCE FOR ALL YEARS MEN AND WOMEN| Plan <br> Year |  |  |  | Actual Overtime |  | Expected Overtime |  | 10-YEAR PERIOD ENDING 6/30/2013 Increase \% |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending June 30, | Life Years Exposed | Salary during the Year |  |  |  | Actual / Expected | $\begin{aligned} & \hline \text { Actual } \\ & \text { (4) / (3) } \\ & \hline \end{aligned}$ | $\begin{gathered} \text { Expected } \\ (5) /(3) \end{gathered}$ |
| (1) | (2) |  | (3) |  | (4) |  |  |  | (5) | (6) | (7) | (8) |
| 2004 | 1,444 | \$ | 73,055,008 | \$ | 19,386,490 | \$ | 14,611,002 | 133\% | 26.54\% | 20.00\% |
| 2005 | 1,562 |  | 80,686,018 |  | 18,347,217 |  | 16,137,204 | 114\% | 22.74\% | 20.00\% |
| 2006 | 1,590 |  | 85,483,912 |  | 17,640,300 |  | 17,096,782 | 103\% | 20.64\% | 20.00\% |
| 2007 | 1,588 |  | 87,673,054 |  | 18,924,300 |  | 17,534,611 | 108\% | 21.59\% | 20.00\% |
| 2008 | 1,586 |  | 92,862,979 |  | 20,268,015 |  | 18,572,596 | 109\% | 21.83\% | 20.00\% |
| 2009 | 1,632 |  | 96,195,547 |  | 21,175,406 |  | 19,239,109 | 110\% | 22.01\% | 20.00\% |
| 2010 | 1,596 |  | 99,314,640 |  | 22,208,889 |  | 19,862,928 | 112\% | 22.36\% | 20.00\% |
| 2011 | 1,544 |  | 95,969,515 |  | 21,097,417 |  | 19,193,903 | 110\% | 21.98\% | 20.00\% |
| 2012 | 1,487 |  | 99,194,586 |  | 14,258,327 |  | 19,838,917 | 72\% | 14.37\% | 20.00\% |
| 2013 | 1,399 |  | 93,663,900 |  | 14,768,734 |  | 18,732,780 | 79\% | 15.77\% | 20.00\% |
| Total | 15,428 |  | 904,099,158 |  | 188,075,095 |  | 180,819,832 | 104\% | 20.80\% | 20.00\% |



## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - HP TP MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

| Age | TABLE 1A |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013Expected DeathsActual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Current | Proposed | Current $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Current $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 0 | N/A | 0.1149\% | 0.0847\% | 0 | 0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.1268\% | 0.0924\% | 0 | 0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.1381\% | 0.1007\% | 0 | 0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.1489\% | 0.1096\% | 0 | 0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.1593\% | 0.1191\% | 0 | 0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.1692\% | 0.1291\% | 0 | 0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.1787\% | 0.1397\% | 0 | 0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.1877\% | 0.1509\% | 0 | 0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.1962\% | 0.1626\% | 0 | 0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.2044\% | 0.1760\% | 0 | 0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.2650\% | 0.1915\% | 0 | 0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.3230\% | 0.2100\% | 0 | 0 | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.3815\% | 0.2320\% | 0 | 0 | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.4387\% | 0.2581\% | 0 | 0 | 0\% | 0\% |
| 55 | 0 | 0 | N/A | 0.4736\% | 0.2889\% | 0 | 0 | 0\% | 0\% |
| 56 | 0 | 19 | 0.000000 | 0.5260\% | 0.3252\% | 0.1 | 0.1 | 0\% | 0\% |
| 57 | 2 | 67 | 0.029851 | 0.5794\% | 0.3661\% | 0.4 | 0.2 | 515\% | 815\% |
| 58 | 0 | 88 | 0.000000 | 0.6335\% | 0.4120\% | 0.6 | 0.4 | 0\% | 0\% |
| 59 | 0 | 122 | 0.000000 | 0.6829\% | 0.4637\% | 0.8 | 0.6 | 0\% | 0\% |
| 60 | 0 | 148 | 0.000000 | 0.7324\% | 0.5220\% | 1.1 | 0.8 | 0\% | 0\% |
| 61 | 2 | 177 | 0.011299 | 0.8220\% | 0.5875\% | 1.5 | 1.0 | 137\% | 192\% |
| 62 | 1 | 187 | 0.005348 | 0.9088\% | 0.6613\% | 1.7 | 1.2 | 59\% | 81\% |
| 63 | 0 | 241 | 0.000000 | 1.0069\% | 0.7443\% | 2.4 | 1.8 | 0\% | 0\% |
| 64 | 4 | 231 | 0.017316 | 1.1009\% | 0.8378\% | 2.5 | 1.9 | 157\% | 207\% |
| 65 | 3 | 391 | 0.007673 | 1.1979\% | 0.9430\% | 4.7 | 3.7 | 64\% | 81\% |
| 66 | 10 | 567 | 0.017637 | 1.3088\% | 1.0614\% | 7.4 | 6.0 | 135\% | 166\% |
| 67 | 9 | 651 | 0.013825 | 1.4132\% | 1.1947\% | 9.2 | 7.8 | 98\% | 116\% |
| 68 | 15 | 689 | 0.021771 | 1.6088\% | 1.3447\% | 11.1 | 9.3 | 135\% | 162\% |
| 69 | 17 | 725 | 0.023448 | 1.8232\% | 1.5136\% | 13.2 | 11.0 | 129\% | 155\% |
| 70 | 10 | 592 | 0.016892 | 2.0284\% | 1.7036\% | 12.0 | 10.1 | 83\% | 99\% |
| 71 | 10 | 521 | 0.019194 | 2.2557\% | 1.9175\% | 11.8 | 10.0 | 85\% | 100\% |
| 72 | 10 | 482 | 0.020747 | 2.4904\% | 2.1583\% | 12.0 | 10.4 | 83\% | 96\% |
| 73 | 8 | 419 | 0.019093 | 2.7697\% | 2.4293\% | 11.6 | 10.2 | 69\% | 79\% |
| 74 | 8 | 339 | 0.023599 | 3.0577\% | 2.7344\% | 10.4 | 9.3 | 77\% | 86\% |
| 75 | 9 | 274 | 0.032847 | 3.3819\% | 3.0777\% | 9.3 | 8.4 | 97\% | 107\% |
| 76 | 10 | 207 | 0.048309 | 3.6897\% | 3.4642\% | 7.6 | 7.2 | 131\% | 139\% |
| 77 | 9 | 139 | 0.064748 | 4.0392\% | 3.8992\% | 5.6 | 5.4 | 160\% | 166\% |
| 78 | 3 | 139 | 0.021583 | 4.5878\% | 4.3888\% | 6.4 | 6.1 | 47\% | 49\% |
| 79 | 9 | 123 | 0.073171 | 5.1603\% | 4.9399\% | 6.3 | 6.1 | 142\% | 148\% |
| 80 | 8 | 110 | 0.072727 | 5.7574\% | 5.5602\% | 6.3 | 6.1 | 126\% | 131\% |
| 81 | 8 | 96 | 0.083333 | 6.2750\% | 6.2583\% | 6.0 | 6.0 | 133\% | 133\% |
| 82 | 6 | 95 | 0.063158 | 6.8004\% | 7.0442\% | 6.5 | 6.7 | 93\% | 90\% |
| 83 | 5 | 81 | 0.061728 | 7.6869\% | 7.9287\% | 6.2 | 6.4 | 80\% | 78\% |
| 84 | 6 | 80 | 0.075000 | 8.6426\% | 8.9243\% | 6.9 | 7.1 | 87\% | 84\% |
| 85 | 6 | 75 | 0.080000 | 9.5359\% | 10.0449\% | 7.2 | 7.5 | 84\% | 80\% |
| 86 | 11 | 81 | 0.135802 | 10.4293\% | 11.3062\% | 8.4 | 9.2 | 130\% | 120\% |
| 87 | 5 | 62 | 0.080645 | 11.4143\% | 12.7259\% | 7.1 | 7.9 | 71\% | 63\% |
| 88 | 10 | 50 | 0.200000 | 12.9703\% | 14.3239\% | 6.5 | 7.2 | 154\% | 140\% |
| 89 | 7 | 42 | 0.166667 | 14.4340\% | 16.1225\% | 6.1 | 6.8 | 115\% | 103\% |
| 90 | 9 | 35 | 0.257143 | 16.0257\% | 18.1469\% | 5.6 | 6.4 | 160\% | 142\% |
| 91 | 2 | 13 | 0.153846 | 17.7342\% | 20.4256\% | 2.3 | 2.7 | 87\% | 75\% |
| 92 | 2 | 21 | 0.095238 | 19.6122\% | 22.9904\% | 4.1 | 4.8 | 49\% | 41\% |
| 93 | 3 | 12 | 0.250000 | 21.3511\% | 25.8773\% | 2.6 | 3.1 | 117\% | 97\% |
| 94 | 2 | 7 | 0.285714 | 23.1317\% | 29.1266\% | 1.6 | 2.0 | 124\% | 98\% |
| 95 | 0 | 3 | 0.000000 | 25.1888\% | 32.7840\% | 0.8 | 1.0 | 0\% | 0\% |
| 96 | 1 | 3 | 0.333333 | 27.1021\% | 36.9006\% | 0.8 | 1.1 | 123\% | 90\% |
| 97 | 1 | 1 | 1.000000 | 28.9236\% | 41.5341\% | 0.3 | 0.4 | 346\% | 241\% |
| 98 | 0 | 3 | 0.000000 | 30.9850\% | 46.7494\% | 0.9 | 1.4 | 0\% | 0\% |
| 99 | 0 | 4 | 0.000000 | 32.6300\% | 50.0000\% | 1.3 | 2.0 | 0\% | 0\% |
| Subtotal | 241 | 8,412 |  |  |  | 237.2 | 224.6 | 102\% | 107\% |
| 100 or more | 1 | 2 | 0.500000 | 37.1685\% | 50.0000\% | 0.7 | 1.0 | 135\% | 100\% |
| Total | 242 | 8,414 |  |  |  | 237.9 | 225.6 | 102\% | 107\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - HP TP MORTALITY EXPERIENCE OF SERVICE RETIREES WOMEN

|  | TABLE 1B |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate (2) / (3) | Current | Proposed | Current <br> (3) $x(5)$ | Proposed $(3) \times(6)$ | Current $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 0 | N/A | 0.0652\% | 0.0891\% | 0 | 0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.0724\% | 0.1482\% | 0 | 0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.0813\% | 0.2073\% | 0 | 0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.0921\% | 0.2663\% | 0 | 0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.1042\% | 0.3254\% | 0 | 0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.1182\% | 0.3844\% | 0 | 0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.1336\% | 0.4435\% | 0 | 0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.1515\% | 0.4658\% | 0 | 0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.1706\% | 0.4882\% | 0 | 0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.1835\% | 0.5105\% | 0 | 0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.1877\% | 0.5328\% | 0 | 0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.1886\% | 0.5551\% | 0 | 0 | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.1888\% | 0.5775\% | 0 | 0 | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.2353\% | 0.6000\% | 0 | 0 | 0\% | 0\% |
| 55 | 0 | 0 | N/A | 0.2757\% | 0.6224\% | 0 | 0 | 0\% | 0\% |
| 56 | 0 | 0 | N/A | 0.3173\% | 0.6448\% | 0 | 0 | 0\% | 0\% |
| 57 | 0 | 0 | N/A | 0.3601\% | 0.6672\% | 0 | 0 | 0\% | 0\% |
| 58 | 0 | 0 | N/A | 0.3940\% | 0.7265\% | 0 | 0 | 0\% | 0\% |
| 59 | 0 | 0 | N/A | 0.4434\% | 0.7858\% | 0 | 0 | 0\% | 0\% |
| 60 | 0 | 0 | N/A | 0.4948\% | 0.8451\% | 0 | 0 | 0\% | 0\% |
| 61 | 0 | 0 | N/A | 0.5483\% | 0.9044\% | 0 | 0 | 0\% | 0\% |
| 62 | 0 | 0 | N/A | 0.5910\% | 0.9637\% | 0 | 0 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 0.6339\% | 1.0967\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.7209\% | 1.2297\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.7970\% | 1.3628\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.8947\% | 1.4958\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.9782\% | 1.6288\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 2 | 0.000000 | 1.0645\% | 1.8723\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 4 | 0.000000 | 1.1784\% | 2.1159\% | 0.0 | 0.1 | 0\% | 0\% |
| 70 | 0 | 1 | 0.000000 | 1.2724\% | 2.3594\% | 0.0 | 0.0 | 0\% | 0\% |
| 71 | 0 | 4 | 0.000000 | 1.4484\% | 2.6030\% | 0.1 | 0.1 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 1.6414\% | 2.8465\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 1 | 0.000000 | 1.8260\% | 3.2374\% | 0.0 | 0.0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 2.0305\% | 3.6283\% | 0 | 0 | 0\% | 0\% |
| 75 | 0 | 0 | N/A | 2.2714\% | 4.0191\% | 0 | 0 | 0\% | 0\% |
| 76 | 0 | 2 | 0.000000 | 2.5261\% | 4.4100\% | 0.1 | 0.1 | 0\% | 0\% |
| 77 | 0 | 4 | 0.000000 | 2.7525\% | 4.8009\% | 0.1 | 0.2 | 0\% | 0\% |
| 78 | 0 | 0 | N/A | 3.0847\% | 5.3759\% | 0 | 0 | 0\% | 0\% |
| 79 | 0 | 2 | 0.000000 | 3.3655\% | 5.9510\% | 0.1 | 0.1 | 0\% | 0\% |
| 80 | 0 | 0 | N/A | 3.7332\% | 6.5260\% | 0 | 0 | 0\% | 0\% |
| 81 | 0 | 0 | N/A | 4.2964\% | 7.1011\% | 0 | 0 | 0\% | 0\% |
| 82 | 0 | 0 | N/A | 4.8965\% | 7.6761\% | 0 | 0 | 0\% | 0\% |
| 83 | 1 | 1 | 1.000000 | 5.5353\% | 8.4721\% | 0.1 | 0.1 | 1807\% | 1180\% |
| 84 | 0 | 0 | N/A | 6.1127\% | 9.2681\% | 0 | 0 | 0\% | 0\% |
| 85 | 0 | 0 | N/A | 6.6246\% | 10.0641\% | 0 | 0 | 0\% | 0\% |
| 86 | 0 | 0 | N/A | 7.3910\% | 10.8601\% | 0 | 0 | 0\% | 0\% |
| 87 | 0 | 1 | 0.000000 | 8.3102\% | 11.6561\% | 0.1 | 0.1 | 0\% | 0\% |
| 88 | 1 | 2 | 0.500000 | 9.1692\% | 12.7099\% | 0.2 | 0.3 | 545\% | 393\% |
| 89 | 0 | 0 | N/A | 9.8983\% | 13.7637\% | 0 | 0 | 0\% | 0\% |
| 90 | 0 | 0 | N/A | 10.9757\% | 14.8175\% | 0 | 0 | 0\% | 0\% |
| 91 | 0 | 0 | N/A | 12.6361\% | 15.8713\% | 0 | 0 | 0\% | 0\% |
| 92 | 0 | 0 | N/A | 14.0621\% | 16.9251\% | 0 | 0 | 0\% | 0\% |
| 93 | 0 | 0 | N/A | 15.6132\% | 18.2735\% | 0 | 0 | 0\% | 0\% |
| 94 | 0 | 0 | N/A | 17.2777\% | 19.6219\% | 0 | 0 | 0\% | 0\% |
| 95 | 0 | 0 | N/A | 19.0720\% | 20.9703\% | 0 | 0 | 0\% | 0\% |
| 96 | 0 | 0 | N/A | 20.3503\% | 22.3186\% | 0 | 0 | 0\% | 0\% |
| 97 | 0 | 0 | N/A | 21.6816\% | 23.6670\% | 0 | 0 | 0\% | 0\% |
| 98 | 0 | 0 | N/A | 22.5836\% | 25.3468\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 23.2086\% | 27.0267\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 2 | 24 |  |  |  | 0.7 | 1.1 | 283\% | 176\% |
| 100 or more | 0 | 0 | N/A | 25.4498\% | 32.0661\% | 0 | 0 | 0\% | 0\% |
| Total | 2 | 24 |  |  |  | 0.7 | 1.1 | 283\% | 176\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - HP TP MORTALITY EXPERIENCE OF SERVICE RETIREES <br> MEN AND WOMEN

| Age | TABLE 1C |  |  | Assumed Probability 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \begin{array}{l} \text { (2) } /(3) \end{array} \\ & \hline \end{aligned}$ | Current | Proposed | Current $(3) \times(5)$ | Proposed $(3) \times(6)$ | Current (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 0 | N/A | 0.0000\% | 0.0749\% | 0 | 0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.0000\% | 0.0824\% | 0 | 0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.0000\% | 0.0907\% | 0 | 0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.0000\% | 0.0996\% | 0 | 0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.0000\% | 0.1087\% | 0 | 0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.0000\% | 0.1183\% | 0 | 0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.0000\% | 0.1283\% | 0 | 0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.0000\% | 0.1387\% | 0 | 0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.0000\% | 0.1500\% | 0 | 0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.0000\% | 0.1622\% | 0 | 0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.0000\% | 0.1792\% | 0 | 0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.0000\% | 0.1952\% | 0 | 0 | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.0000\% | 0.2135\% | 0 | 0 | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.0000\% | 0.2319\% | 0 | 0 | 0\% | 0\% |
| 55 | 0 | 0 | N/A | 0.0000\% | 0.2571\% | 0 | 0 | 0\% | 0\% |
| 56 | 0 | 19 | 0.000000 | 0.5260\% | 0.2892\% | 0.1 | 0.1 | 0\% | 0\% |
| 57 | 2 | 67 | 0.029851 | 0.5794\% | 0.3219\% | 0.4 | 0.2 | 515\% | 815\% |
| 58 | 0 | 88 | 0.000000 | 0.6335\% | 0.3591\% | 0.6 | 0.4 | 0\% | 0\% |
| 59 | 0 | 122 | 0.000000 | 0.6829\% | 0.4021\% | 0.8 | 0.6 | 0\% | 0\% |
| 60 | 0 | 148 | 0.000000 | 0.7324\% | 0.4526\% | 1.1 | 0.8 | 0\% | 0\% |
| 61 | 2 | 177 | 0.011299 | 0.8220\% | 0.5148\% | 1.5 | 1.0 | 137\% | 192\% |
| 62 | 1 | 187 | 0.005348 | 0.9088\% | 0.5829\% | 1.7 | 1.2 | 59\% | 81\% |
| 63 | 0 | 241 | 0.000000 | 1.0069\% | 0.6697\% | 2.4 | 1.8 | 0\% | 0\% |
| 64 | 4 | 231 | 0.017316 | 1.1009\% | 0.7547\% | 2.5 | 1.9 | 157\% | 207\% |
| 65 | 3 | 391 | 0.007673 | 1.1979\% | 0.8499\% | 4.7 | 3.7 | 64\% | 81\% |
| 66 | 10 | 567 | 0.017637 | 1.3088\% | 0.9592\% | 7.4 | 6.0 | 135\% | 166\% |
| 67 | 9 | 651 | 0.013825 | 1.4132\% | 1.0650\% | 9.2 | 7.8 | 98\% | 116\% |
| 68 | 15 | 691 | 0.021708 | 1.6072\% | 1.1773\% | 11.1 | 9.3 | 135\% | 161\% |
| 69 | 17 | 729 | 0.023320 | 1.8197\% | 1.3012\% | 13.3 | 11.1 | 128\% | 154\% |
| 70 | 10 | 593 | 0.016863 | 2.0271\% | 1.4660\% | 12.0 | 10.1 | 83\% | 99\% |
| 71 | 10 | 525 | 0.019048 | 2.2495\% | 1.6269\% | 11.8 | 10.1 | 85\% | 99\% |
| 72 | 10 | 482 | 0.020747 | 2.4904\% | 1.8095\% | 12.0 | 10.4 | 83\% | 96\% |
| 73 | 8 | 420 | 0.019048 | 2.7675\% | 2.0113\% | 11.6 | 10.2 | 69\% | 78\% |
| 74 | 8 | 339 | 0.023599 | 3.0577\% | 2.2292\% | 10.4 | 9.3 | 77\% | 86\% |
| 75 | 9 | 274 | 0.032847 | 3.3819\% | 2.4611\% | 9.3 | 8.4 | 97\% | 107\% |
| 76 | 10 | 209 | 0.047847 | 3.6786\% | 2.7115\% | 7.7 | 7.3 | 130\% | 138\% |
| 77 | 9 | 143 | 0.062937 | 4.0032\% | 2.9864\% | 5.7 | 5.6 | 157\% | 160\% |
| 78 | 3 | 139 | 0.021583 | 4.5878\% | 3.2920\% | 6.4 | 6.1 | 47\% | 49\% |
| 79 | 9 | 125 | 0.072000 | 5.1316\% | 3.6344\% | 6.4 | 6.2 | 140\% | 145\% |
| 80 | 8 | 110 | 0.072727 | 5.7574\% | 4.0174\% | 6.3 | 6.1 | 126\% | 131\% |
| 81 | 8 | 96 | 0.083333 | 6.2750\% | 4.4465\% | 6.0 | 6.0 | 133\% | 133\% |
| 82 | 6 | 95 | 0.063158 | 6.8004\% | 4.9293\% | 6.5 | 6.7 | 93\% | 90\% |
| 83 | 6 | 82 | 0.073171 | 7.6607\% | 5.4733\% | 6.3 | 6.5 | 96\% | 92\% |
| 84 | 6 | 80 | 0.075000 | 8.6426\% | 6.0872\% | 6.9 | 7.1 | 87\% | 84\% |
| 85 | 6 | 75 | 0.080000 | 9.5359\% | 6.7815\% | 7.2 | 7.5 | 84\% | 80\% |
| 86 | 11 | 81 | 0.135802 | 10.4293\% | 7.5634\% | 8.4 | 9.2 | 130\% | 120\% |
| 87 | 5 | 63 | 0.079365 | 11.3650\% | 8.4357\% | 7.2 | 8.0 | 70\% | 62\% |
| 88 | 11 | 52 | 0.211538 | 12.8241\% | 9.3959\% | 6.7 | 7.4 | 165\% | 148\% |
| 89 | 7 | 42 | 0.166667 | 14.4340\% | 10.4336\% | 6.1 | 6.8 | 115\% | 103\% |
| 90 | 9 | 35 | 0.257143 | 16.0257\% | 11.6597\% | 5.6 | 6.4 | 160\% | 142\% |
| 91 | 2 | 13 | 0.153846 | 17.7342\% | 12.9469\% | 2.3 | 2.7 | 87\% | 75\% |
| 92 | 2 | 21 | 0.095238 | 19.6122\% | 14.2697\% | 4.1 | 4.8 | 49\% | 41\% |
| 93 | 3 | 12 | 0.250000 | 21.3511\% | 15.6021\% | 2.6 | 3.1 | 117\% | 97\% |
| 94 | 2 | 7 | 0.285714 | 23.1317\% | 16.9206\% | 1.6 | 2.0 | 124\% | 98\% |
| 95 | 0 | 3 | 0.000000 | 25.1888\% | 18.2050\% | 0.8 | 1.0 | 0\% | 0\% |
| 96 | 1 | 3 | 0.333333 | 27.1021\% | 19.4361\% | 0.8 | 1.1 | 123\% | 90\% |
| 97 | 1 | 1 | 1.000000 | 28.9236\% | 20.5957\% | 0.3 | 0.4 | 346\% | 241\% |
| 98 | 0 | 3 | 0.000000 | 30.9850\% | 21.4288\% | 0.9 | 1.4 | 0\% | 0\% |
| 99 | 0 | 4 | 0.000000 | 32.6300\% | 22.3865\% | 1.3 | 2.0 | 0\% | 0\% |
| Subtotal | 243 | 8,436 |  |  |  | 237.9 | 225.8 | 102\% | 108\% |
| 100 or more | 1 | 2 | 0.500000 | 37.1685\% | 24.8955\% | 0.7 | 1.0 | 135\% | 100\% |
| Total | 244 | 8,438 |  |  |  | 238.6 | 226.8 | 102\% | 108\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - HP TP MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

|  | TABLE 1A GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Current <br> (7) / (3) | Proposed <br> (8) / (3) | Current | Proposed | Current <br> (2) / (7) | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 45-49 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 50-54 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 55-59 | 2 | 296 | 0.006757 | 0.6347\% | 0.4174\% | 1.9 | 1.2 | 106\% | 162\% |
| 60-64 | 7 | 984 | 0.007114 | 0.9358\% | 0.6888\% | 9.2 | 6.8 | 76\% | 103\% |
| 65-69 | 54 | 3,023 | 0.017863 | 1.5087\% | 1.2478\% | 45.6 | 37.7 | 118\% | 143\% |
| 70-74 | 46 | 2,353 | 0.019550 | 2.4537\% | 2.1219\% | 57.7 | 49.9 | 80\% | 92\% |
| 75-79 | 40 | 882 | 0.045351 | 3.9958\% | 3.7642\% | 35.2 | 33.2 | 113\% | 120\% |
| 80-84 | 33 | 462 | 0.071429 | 6.9173\% | 7.0082\% | 32.0 | 32.4 | 103\% | 102\% |
| 85-89 | 39 | 310 | 0.125806 | 11.3626\% | 12.4242\% | 35.2 | 38.5 | 111\% | 101\% |
| 90-94 | 18 | 88 | 0.204545 | 18.4254\% | 21.5669\% | 16.2 | 19.0 | 111\% | 95\% |
| 95-99 | 2 | 14 | 0.142857 | 29.2337\% | 42.2026\% | 4.1 | 5.9 | 49\% | 34\% |
| 100+ | 1 | 2 | 0.500000 | 37.1685\% | 50.0000\% | 0.7 | 1.0 | 135\% | 100\% |
| Total | 242 | 8,414 |  |  |  | 237.9 | 225.6 | 102\% | 107\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - HP TP MORTALITY EXPERIENCE OF SERVICE RETIREES WOMEN

|  | TABLE 1B GROUPED |  |  | $\begin{array}{lc}\text { Assumed Probability } & \begin{array}{c}\text { 4-YEAR PERIOD ENDING 6/30/2013 } \\ \text { Expected Deaths }\end{array} \\ \text { Actual/Expected }\end{array}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } /(\mathbf{3}) \\ & \hline \end{aligned}$ | Current <br> (7) / (3) | Proposed <br> (8) / (3) | Current | Proposed | Current <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 45-49 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 50-54 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 55-59 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 60-64 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 65-69 | 0 | 6 | 0.000000 | 1.1404\% | 2.0347\% | 0.1 | 0.1 | 0\% | 0\% |
| 70-74 | 0 | 6 | 0.000000 | 1.4820\% | 2.6681\% | 0.1 | 0.2 | 0\% | 0\% |
| 75-79 | 0 | 8 | 0.000000 | 2.8492\% | 4.9907\% | 0.2 | 0.4 | 0\% | 0\% |
| 80-84 | 1 | 1 | 1.000000 | 5.5353\% | 8.4721\% | 0.1 | 0.1 | 1807\% | 1180\% |
| 85-89 | 1 | 3 | 0.333333 | 8.8829\% | 12.3587\% | 0.3 | 0.4 | 375\% | 270\% |
| 90-94 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 95-99 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 2 | 24 |  |  |  | 0.7 | 1.1 | 283\% | 176\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - HP TP MORTALITY EXPERIENCE OF SERVICE RETIREES MEN AND WOMEN

|  | TABLE 1C GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Current <br> (7) / (3) | Proposed <br> (8) / (3) | Current | Proposed | Current <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 45-49 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 50-54 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 55-59 | 2 | 296 | 0.006757 | 0.6347\% | 0.4174\% | 1.9 | 1.2 | 106\% | 162\% |
| 60-64 | 7 | 984 | 0.007114 | 0.9358\% | 0.6888\% | 9.2 | 6.8 | 76\% | 103\% |
| 65-69 | 54 | 3,029 | 0.017828 | 1.5080\% | 1.2494\% | 45.7 | 37.8 | 118\% | 143\% |
| 70-74 | 46 | 2,359 | 0.019500 | 2.4512\% | 2.1232\% | 57.8 | 50.1 | 80\% | 92\% |
| 75-79 | 40 | 890 | 0.044944 | 3.9855\% | 3.7752\% | 35.5 | 33.6 | 113\% | 119\% |
| 80-84 | 34 | 463 | 0.073434 | 6.9143\% | 7.0114\% | 32.0 | 32.5 | 106\% | 105\% |
| 85-89 | 40 | 313 | 0.127796 | 11.3388\% | 12.4236\% | 35.5 | 38.9 | 113\% | 103\% |
| 90-94 | 18 | 88 | 0.204545 | 18.4254\% | 21.5669\% | 16.2 | 19.0 | 111\% | 95\% |
| 95-99 | 2 | 14 | 0.142857 | 29.2337\% | 42.2026\% | 4.1 | 5.9 | 49\% | 34\% |
| 100+ | 1 | 2 | 0.500000 | 37.1685\% | 50.0000\% | 0.7 | 1.0 | 135\% | 100\% |
| Total | 244 | 8,438 |  |  |  | 238.6 | 226.8 | 102\% | 108\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - HP TP MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

| Age | TABLE 1A |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Deaths | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \begin{array}{l} \text { (2) } /(3) \end{array} \\ & \hline \end{aligned}$ | Current | Proposed | Current $(3) \times(5)$ | Proposed $(3) \times(6)$ | Current $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 0 | N/A | 0.1181\% | 0.0919\% | 0 | 0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.1307\% | 0.1007\% | 0 | 0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.1428\% | 0.1099\% | 0 | 0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.1544\% | 0.1195\% | 0 | 0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.1657\% | 0.1295\% | 0 | 0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.1766\% | 0.1399\% | 0 | 0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.1870\% | 0.1506\% | 0 | 0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.1970\% | 0.1616\% | 0 | 0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.2066\% | 0.1730\% | 0 | 0 | 0\% | 0\% |
| 50 | 0 | 19 | 0.000000 | 0.2158\% | 0.1858\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 1 | 50 | 0.020000 | 0.2807\% | 0.2005\% | 0.1 | 0.1 | 713\% | 997\% |
| 52 | 1 | 84 | 0.011905 | 0.3432\% | 0.2179\% | 0.3 | 0.2 | 347\% | 546\% |
| 53 | 1 | 122 | 0.008197 | 0.4054\% | 0.2385\% | 0.5 | 0.3 | 202\% | 344\% |
| 54 | 1 | 174 | 0.005747 | 0.4662\% | 0.2633\% | 0.8 | 0.5 | 123\% | 218\% |
| 55 | 1 | 216 | 0.004630 | 0.5017\% | 0.2930\% | 1.1 | 0.6 | 92\% | 158\% |
| 56 | 0 | 288 | 0.000000 | 0.5555\% | 0.3286\% | 1.6 | 0.9 | 0\% | 0\% |
| 57 | 7 | 363 | 0.019284 | 0.6099\% | 0.3697\% | 2.2 | 1.3 | 316\% | 522\% |
| 58 | 1 | 433 | 0.002309 | 0.6649\% | 0.4170\% | 2.9 | 1.8 | 35\% | 55\% |
| 59 | 3 | 605 | 0.004959 | 0.7167\% | 0.4716\% | 4.3 | 2.9 | 69\% | 105\% |
| 60 | 11 | 806 | 0.013648 | 0.7688\% | 0.5344\% | 6.2 | 4.3 | 178\% | 255\% |
| 61 | 11 | 983 | 0.011190 | 0.8602\% | 0.6062\% | 8.5 | 6.0 | 130\% | 185\% |
| 62 | 13 | 1,115 | 0.011659 | 0.9510\% | 0.6879\% | 10.6 | 7.7 | 123\% | 169\% |
| 63 | 17 | 1,273 | 0.013354 | 1.0504\% | 0.7802\% | 13.4 | 9.9 | 127\% | 171\% |
| 64 | 18 | 1,290 | 0.013953 | 1.1484\% | 0.8841\% | 14.8 | 11.4 | 122\% | 158\% |
| 65 | 15 | 1,406 | 0.010669 | 1.2497\% | 1.0008\% | 17.6 | 14.1 | 85\% | 107\% |
| 66 | 23 | 1,489 | 0.015447 | 1.3612\% | 1.1318\% | 20.3 | 16.9 | 113\% | 136\% |
| 67 | 21 | 1,484 | 0.014151 | 1.4697\% | 1.2790\% | 21.8 | 19.0 | 96\% | 111\% |
| 68 | 29 | 1,385 | 0.020939 | 1.6783\% | 1.4440\% | 23.2 | 20.0 | 125\% | 145\% |
| 69 | 24 | 1,303 | 0.018419 | 1.9020\% | 1.6298\% | 24.8 | 21.2 | 97\% | 113\% |
| 70 | 20 | 1,083 | 0.018467 | 2.1225\% | 1.8386\% | 23.0 | 19.9 | 87\% | 100\% |
| 71 | 20 | 930 | 0.021505 | 2.3603\% | 2.0735\% | 22.0 | 19.3 | 91\% | 104\% |
| 72 | 16 | 812 | 0.019704 | 2.6060\% | 2.3377\% | 21.2 | 19.0 | 76\% | 84\% |
| 73 | 18 | 689 | 0.026125 | 2.8981\% | 2.6348\% | 20.0 | 18.2 | 90\% | 99\% |
| 74 | 16 | 567 | 0.028219 | 3.1996\% | 2.9684\% | 18.1 | 16.8 | 88\% | 95\% |
| 75 | 23 | 475 | 0.048421 | 3.5280\% | 3.3425\% | 16.8 | 15.9 | 137\% | 145\% |
| 76 | 11 | 398 | 0.027638 | 3.8491\% | 3.7630\% | 15.3 | 15.0 | 72\% | 73\% |
| 77 | 21 | 337 | 0.062315 | 4.2010\% | 4.2342\% | 14.2 | 14.3 | 148\% | 147\% |
| 78 | 12 | 315 | 0.038095 | 4.7570\% | 4.7619\% | 15.0 | 15.0 | 80\% | 80\% |
| 79 | 19 | 294 | 0.064626 | 5.3344\% | 5.3544\% | 15.7 | 15.7 | 121\% | 121\% |
| 80 | 18 | 278 | 0.064748 | 5.9336\% | 6.0199\% | 16.5 | 16.7 | 109\% | 108\% |
| 81 | 16 | 251 | 0.063745 | 6.4475\% | 6.7668\% | 16.2 | 17.0 | 99\% | 94\% |
| 82 | 17 | 240 | 0.070833 | 6.9662\% | 7.6055\% | 16.7 | 18.3 | 102\% | 93\% |
| 83 | 14 | 210 | 0.066667 | 7.8743\% | 8.5482\% | 16.5 | 18.0 | 85\% | 78\% |
| 84 | 10 | 198 | 0.050505 | 8.8266\% | 9.6078\% | 17.5 | 19.0 | 57\% | 53\% |
| 85 | 18 | 174 | 0.103448 | 9.7390\% | 10.7988\% | 16.9 | 18.8 | 106\% | 96\% |
| 86 | 16 | 158 | 0.101266 | 10.6514\% | 12.1361\% | 16.8 | 19.2 | 95\% | 83\% |
| 87 | 11 | 128 | 0.085938 | 11.6222\% | 13.6376\% | 14.9 | 17.5 | 74\% | 63\% |
| 88 | 17 | 99 | 0.171717 | 13.1669\% | 15.3202\% | 13.0 | 15.2 | 130\% | 112\% |
| 89 | 12 | 75 | 0.160000 | 14.6527\% | 17.2052\% | 11.0 | 12.9 | 109\% | 93\% |
| 90 | 14 | 57 | 0.245614 | 16.2196\% | 19.3163\% | 9.2 | 11.0 | 151\% | 127\% |
| 91 | 3 | 27 | 0.111111 | 17.9487\% | 21.6797\% | 4.8 | 5.9 | 62\% | 51\% |
| 92 | 4 | 29 | 0.137931 | 19.7897\% | 24.3200\% | 5.7 | 7.1 | 70\% | 57\% |
| 93 | 4 | 18 | 0.222222 | 21.5444\% | 27.2626\% | 3.9 | 4.9 | 103\% | 82\% |
| 94 | 2 | 13 | 0.153846 | 23.3411\% | 30.5706\% | 3.0 | 4.0 | 66\% | 50\% |
| 95 | 1 | 8 | 0.125000 | 25.3405\% | 34.2977\% | 2.0 | 2.7 | 49\% | 36\% |
| 96 | 1 | 7 | 0.142857 | 27.2653\% | 38.5104\% | 1.9 | 2.7 | 52\% | 37\% |
| 97 | 2 | 4 | 0.500000 | 29.0978\% | 43.2408\% | 1.2 | 1.7 | 172\% | 116\% |
| 98 | 0 | 3 | 0.000000 | 31.0781\% | 48.5522\% | 0.9 | 1.5 | 0\% | 0\% |
| 99 | 0 | 4 | 0.000000 | 32.7280\% | 51.8074\% | 1.3 | 2.1 | 0\% | 0\% |
| Subtotal | 554 | 22,769 |  |  |  | 546.3 | 524.0 | 101\% | 106\% |
| 100 or more | 1 | 2 | 0.500000 | 37.1685\% | 51.6818\% | 0.7 | 1.0 | 135\% | 97\% |
| Total | 555 | 22,771 |  |  |  | 547.0 | 525.1 | 101\% | 106\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - HP TP MORTALITY EXPERIENCE OF SERVICE RETIREES WOMEN

| Age | TABLE 1B |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013Expected Deaths |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Deaths | Total Exposed | Actual Rate (2) / (3) | Current | Proposed | Current $(3) \times(5)$ | Proposed $(3) \times(6)$ | Current (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 0 | N/A | 0.0683\% | 0.0967\% | 0 | 0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.0758\% | 0.1614\% | 0 | 0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.0851\% | 0.2261\% | 0 | 0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.0964\% | 0.2903\% | 0 | 0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.1094\% | 0.3539\% | 0 | 0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.1245\% | 0.4165\% | 0 | 0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.1411\% | 0.4781\% | 0 | 0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.1599\% | 0.4991\% | 0 | 0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.1801\% | 0.5195\% | 0 | 0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.1931\% | 0.5390\% | 0 | 0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.1970\% | 0.5579\% | 0 | 0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.1967\% | 0.5760\% | 0 | 0 | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.1958\% | 0.5938\% | 0 | 0 | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.2425\% | 0.6119\% | 0 | 0 | 0\% | 0\% |
| 55 | 0 | 0 | N/A | 0.2825\% | 0.6310\% | 0 | 0 | 0\% | 0\% |
| 56 | 0 | 0 | N/A | 0.3231\% | 0.6515\% | 0 | 0 | 0\% | 0\% |
| 57 | 0 | 0 | N/A | 0.3656\% | 0.6738\% | 0 | 0 | 0\% | 0\% |
| 58 | 0 | 0 | N/A | 0.3999\% | 0.7354\% | 0 | 0 | 0\% | 0\% |
| 59 | 0 | 0 | N/A | 0.4501\% | 0.7991\% | 0 | 0 | 0\% | 0\% |
| 60 | 0 | 0 | N/A | 0.5023\% | 0.8653\% | 0 | 0 | 0\% | 0\% |
| 61 | 0 | 0 | N/A | 0.5566\% | 0.9332\% | 0 | 0 | 0\% | 0\% |
| 62 | 0 | 2 | 0.000000 | 0.5999\% | 1.0025\% | 0.0 | 0.0 | 0\% | 0\% |
| 63 | 0 | 2 | 0.000000 | 0.6435\% | 1.1496\% | 0.0 | 0.0 | 0\% | 0\% |
| 64 | 0 | 3 | 0.000000 | 0.7318\% | 1.2977\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 0 | 3 | 0.000000 | 0.8091\% | 1.4463\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 3 | 0.000000 | 0.9083\% | 1.5949\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 3 | 0.000000 | 0.9930\% | 1.7437\% | 0.0 | 0.1 | 0\% | 0\% |
| 68 | 0 | 3 | 0.000000 | 1.0806\% | 2.0106\% | 0.0 | 0.1 | 0\% | 0\% |
| 69 | 0 | 5 | 0.000000 | 1.1963\% | 2.2784\% | 0.1 | 0.1 | 0\% | 0\% |
| 70 | 0 | 3 | 0.000000 | 1.2916\% | 2.5464\% | 0.0 | 0.1 | 0\% | 0\% |
| 71 | 0 | 6 | 0.000000 | 1.4748\% | 2.8147\% | 0.1 | 0.2 | 0\% | 0\% |
| 72 | 0 | 2 | 0.000000 | 1.6713\% | 3.0831\% | 0.0 | 0.1 | 0\% | 0\% |
| 73 | 0 | 4 | 0.000000 | 1.8648\% | 3.5112\% | 0.1 | 0.1 | 0\% | 0\% |
| 74 | 0 | 3 | 0.000000 | 2.0738\% | 3.9388\% | 0.1 | 0.1 | 0\% | 0\% |
| 75 | 1 | 3 | 0.333333 | 2.3268\% | 4.3649\% | 0.1 | 0.1 | 1433\% | 764\% |
| 76 | 0 | 2 | 0.000000 | 2.5877\% | 4.7904\% | 0.1 | 0.1 | 0\% | 0\% |
| 77 | 0 | 5 | 0.000000 | 2.8111\% | 5.2134\% | 0.1 | 0.3 | 0\% | 0\% |
| 78 | 0 | 1 | 0.000000 | 3.1504\% | 5.8330\% | 0.0 | 0.1 | 0\% | 0\% |
| 79 | 0 | 3 | 0.000000 | 3.4372\% | 6.4503\% | 0.1 | 0.2 | 0\% | 0\% |
| 80 | 0 | 1 | 0.000000 | 3.8127\% | 7.0656\% | 0.0 | 0.1 | 0\% | 0\% |
| 81 | 0 | 2 | 0.000000 | 4.3879\% | 7.6779\% | 0.1 | 0.2 | 0\% | 0\% |
| 82 | 0 | 2 | 0.000000 | 5.0008\% | 8.2878\% | 0.1 | 0.2 | 0\% | 0\% |
| 83 | 1 | 2 | 0.500000 | 5.6532\% | 9.1341\% | 0.1 | 0.2 | 884\% | 547\% |
| 84 | 0 | 1 | 0.000000 | 6.2429\% | 9.9780\% | 0.1 | 0.1 | 0\% | 0\% |
| 85 | 0 | 1 | 0.000000 | 6.7453\% | 10.8194\% | 0.1 | 0.1 | 0\% | 0\% |
| 86 | 0 | 1 | 0.000000 | 7.5029\% | 11.6572\% | 0.1 | 0.1 | 0\% | 0\% |
| 87 | 0 | 1 | 0.000000 | 8.4107\% | 12.4912\% | 0.1 | 0.1 | 0\% | 0\% |
| 88 | 1 | 2 | 0.500000 | 9.2801\% | 13.5940\% | 0.2 | 0.3 | 539\% | 368\% |
| 89 | 0 | 0 | N/A | 9.9879\% | 14.6881\% | 0 | 0 | 0\% | 0\% |
| 90 | 0 | 0 | N/A | 11.0751\% | 15.7723\% | 0 | 0 | 0\% | 0\% |
| 91 | 0 | 0 | N/A | 12.7505\% | 16.8458\% | 0 | 0 | 0\% | 0\% |
| 92 | 0 | 0 | N/A | 14.1894\% | 17.9039\% | 0 | 0 | 0\% | 0\% |
| 93 | 0 | 0 | N/A | 15.7073\% | 19.2517\% | 0 | 0 | 0\% | 0\% |
| 94 | 0 | 0 | N/A | 17.3818\% | 20.5947\% | 0 | 0 | 0\% | 0\% |
| 95 | 1 | 1 | 1.000000 | 19.1869\% | 21.9385\% | 0.2 | 0.2 | 521\% | 456\% |
| 96 | 0 | 0 | N/A | 20.4729\% | 23.2924\% | 0 | 0 | 0\% | 0\% |
| 97 | 0 | 0 | N/A | 21.7468\% | 24.6395\% | 0 | 0 | 0\% | 0\% |
| 98 | 0 | 0 | N/A | 22.6515\% | 26.3243\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 23.2784\% | 28.0036\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 4 | 70 |  |  |  | 1.9 | 3.2 | 208\% | 124\% |
| 100 or more | 0 | 0 | N/A | 25.4498\% | $33.2252 \%$ | 0 | 0 | 0\% | 0\% |
| Total | 4 | 70 |  |  |  | 1.9 | 3.2 | 208\% | 124\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - HP TP MORTALITY EXPERIENCE OF SERVICE RETIREES <br> MEN AND WOMEN

|  | TABLE 1C |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Current | Proposed | Current $\text { (3) } \times(5)$ | Proposed $(3) \times(6)$ | Current $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 50 | 0 | 19 | 0.000000 | 0.2158\% | 0.1858\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 1 | 50 | 0.020000 | 0.2807\% | 0.2005\% | 0.1 | 0.1 | 713\% | 997\% |
| 52 | 1 | 84 | 0.011905 | 0.3432\% | 0.2179\% | 0.3 | 0.2 | 347\% | 546\% |
| 53 | 1 | 122 | 0.008197 | 0.4054\% | 0.2385\% | 0.5 | 0.3 | 202\% | 344\% |
| 54 | 1 | 174 | 0.005747 | 0.4662\% | 0.2633\% | 0.8 | 0.5 | 123\% | 218\% |
| 55 | 1 | 216 | 0.004630 | 0.5017\% | 0.2930\% | 1.1 | 0.6 | 92\% | 158\% |
| 56 | 0 | 288 | 0.000000 | 0.5555\% | 0.3286\% | 1.6 | 0.9 | 0\% | 0\% |
| 57 | 7 | 363 | 0.019284 | 0.6099\% | 0.3697\% | 2.2 | 1.3 | 316\% | 522\% |
| 58 | 1 | 433 | 0.002309 | 0.6649\% | 0.4170\% | 2.9 | 1.8 | 35\% | 55\% |
| 59 | 3 | 605 | 0.004959 | 0.7167\% | 0.4716\% | 4.3 | 2.9 | 69\% | 105\% |
| 60 | 11 | 806 | 0.013648 | 0.7688\% | 0.5344\% | 6.2 | 4.3 | 178\% | 255\% |
| 61 | 11 | 983 | 0.011190 | 0.8602\% | 0.6062\% | 8.5 | 6.0 | 130\% | 185\% |
| 62 | 13 | 1,117 | 0.011638 | 0.9504\% | 0.6885\% | 10.6 | 7.7 | 122\% | 169\% |
| 63 | 17 | 1,275 | 0.013333 | 1.0498\% | 0.7808\% | 13.4 | 10.0 | 127\% | 171\% |
| 64 | 18 | 1,293 | 0.013921 | 1.1474\% | 0.8851\% | 14.8 | 11.4 | 121\% | 157\% |
| 65 | 15 | 1,409 | 0.010646 | 1.2488\% | 1.0017\% | 17.6 | 14.1 | 85\% | 106\% |
| 66 | 23 | 1,492 | 0.015416 | 1.3603\% | 1.1327\% | 20.3 | 16.9 | 113\% | 136\% |
| 67 | 21 | 1,487 | 0.014122 | 1.4687\% | 1.2799\% | 21.8 | 19.0 | 96\% | 110\% |
| 68 | 29 | 1,388 | 0.020893 | 1.6770\% | 1.4452\% | 23.3 | 20.1 | 125\% | 145\% |
| 69 | 24 | 1,308 | 0.018349 | 1.8993\% | 1.6323\% | 24.8 | 21.4 | 97\% | 112\% |
| 70 | 20 | 1,086 | 0.018416 | 2.1202\% | 1.8406\% | 23.0 | 20.0 | 87\% | 100\% |
| 71 | 20 | 936 | 0.021368 | 2.3546\% | 2.0783\% | 22.0 | 19.5 | 91\% | 103\% |
| 72 | 16 | 814 | 0.019656 | 2.6037\% | 2.3396\% | 21.2 | 19.0 | 75\% | 84\% |
| 73 | 18 | 693 | 0.025974 | 2.8921\% | 2.6398\% | 20.0 | 18.3 | 90\% | 98\% |
| 74 | 16 | 570 | 0.028070 | 3.1937\% | 2.9735\% | 18.2 | 16.9 | 88\% | 94\% |
| 75 | 24 | 478 | 0.050209 | 3.5205\% | 3.3489\% | 16.8 | 16.0 | 143\% | 150\% |
| 76 | 11 | 400 | 0.027500 | 3.8428\% | 3.7681\% | 15.4 | 15.1 | 72\% | 73\% |
| 77 | 21 | 342 | 0.061404 | 4.1807\% | 4.2485\% | 14.3 | 14.5 | 147\% | 145\% |
| 78 | 12 | 316 | 0.037975 | 4.7519\% | 4.7653\% | 15.0 | 15.1 | 80\% | 80\% |
| 79 | 19 | 297 | 0.063973 | 5.3152\% | 5.3654\% | 15.8 | 15.9 | 120\% | 119\% |
| 80 | 18 | 279 | 0.064516 | 5.9260\% | 6.0236\% | 16.5 | 16.8 | 109\% | 107\% |
| 81 | 16 | 253 | 0.063241 | 6.4312\% | 6.7740\% | 16.3 | 17.1 | 98\% | 93\% |
| 82 | 17 | 242 | 0.070248 | 6.9500\% | 7.6112\% | 16.8 | 18.4 | 101\% | 92\% |
| 83 | 15 | 212 | 0.070755 | 7.8533\% | 8.5538\% | 16.6 | 18.1 | 90\% | 83\% |
| 84 | 10 | 199 | 0.050251 | 8.8136\% | 9.6097\% | 17.5 | 19.1 | 57\% | 52\% |
| 85 | 18 | 175 | 0.102857 | 9.7219\% | 10.7989\% | 17.0 | 18.9 | 106\% | 95\% |
| 86 | 16 | 159 | 0.100629 | 10.6316\% | 12.1331\% | 16.9 | 19.3 | 95\% | 83\% |
| 87 | 11 | 129 | 0.085271 | 11.5973\% | 13.6287\% | 15.0 | 17.6 | 74\% | 63\% |
| 88 | 18 | 101 | 0.178218 | 13.0899\% | 15.2861\% | 13.2 | 15.4 | 136\% | 117\% |
| 89 | 12 | 75 | 0.160000 | 14.6527\% | 17.2052\% | 11.0 | 12.9 | 109\% | 93\% |
| 90 | 14 | 57 | 0.245614 | 16.2196\% | 19.3163\% | 9.2 | 11.0 | 151\% | 127\% |
| 91 | 3 | 27 | 0.111111 | 17.9487\% | 21.6797\% | 4.8 | 5.9 | 62\% | 51\% |
| 92 | 4 | 29 | 0.137931 | 19.7897\% | 24.3200\% | 5.7 | 7.1 | 70\% | 57\% |
| 93 | 4 | 18 | 0.222222 | 21.5444\% | 27.2626\% | 3.9 | 4.9 | 103\% | 82\% |
| 94 | 2 | 13 | 0.153846 | 23.3411\% | 30.5706\% | 3.0 | 4.0 | 66\% | 50\% |
| 95 | 2 | 9 | 0.222222 | 24.6568\% | 32.9244\% | 2.2 | 3.0 | 90\% | 67\% |
| 96 | 1 | 7 | 0.142857 | 27.2653\% | 38.5104\% | 1.9 | 2.7 | 52\% | 37\% |
| 97 | 2 | 4 | 0.500000 | 29.0978\% | 43.2408\% | 1.2 | 1.7 | 172\% | 116\% |
| 98 | 0 | 3 | 0.000000 | 31.0781\% | 48.5522\% | 0.9 | 1.5 | 0\% | 0\% |
| 99 | 0 | 4 | 0.000000 | 32.7280\% | 51.8074\% | 1.3 | 2.1 | 0\% | 0\% |
| Subtotal | 558 | 22,839 |  |  |  | 548.2 | 527.2 | 102\% | 106\% |
| 100 or more | 1 | 2 | 0.500000 | 37.1685\% | 51.6818\% | 0.7 | 1.0 | 135\% | 97\% |
| Total | 559 | 22,841 |  |  |  | 549.0 | 528.3 | 102\% | 106\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - HP TP MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

|  | TABLE 1A GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \begin{array}{l} \text { (2) } /(3) \end{array} \\ & \hline \end{aligned}$ | Current $(7) /(3)$ | Proposed (8) / (3) | Current | Proposed | Current $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 45-49 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 50-54 | 4 | 449 | 0.008909 | 0.3954\% | 0.2378\% | 1.8 | 1.1 | 225\% | 375\% |
| 55-59 | 12 | 1,905 | 0.006299 | 0.6358\% | 0.3979\% | 12.1 | 7.6 | 99\% | 158\% |
| 60-64 | 70 | 5,467 | 0.012804 | 0.9775\% | 0.7184\% | 53.4 | 39.3 | 131\% | 178\% |
| 65-69 | 112 | 7,067 | 0.015848 | 1.5237\% | 1.2896\% | 107.7 | 91.1 | 104\% | 123\% |
| 70-74 | 90 | 4,081 | 0.022053 | 2.5535\% | 2.2828\% | 104.2 | 93.2 | 86\% | 97\% |
| 75-79 | 86 | 1,819 | 0.047279 | 4.2277\% | 4.1707\% | 76.9 | 75.9 | 112\% | 113\% |
| 80-84 | 75 | 1,177 | 0.063721 | 7.0867\% | 7.5572\% | 83.4 | 88.9 | 90\% | 84\% |
| 85-89 | 74 | 634 | 0.116719 | 11.4631\% | 13.1691\% | 72.7 | 83.5 | 102\% | 89\% |
| 90-94 | 27 | 144 | 0.187500 | 18.5713\% | 22.7764\% | 26.7 | 32.8 | 101\% | 82\% |
| 95-99 | 4 | 26 | 0.153846 | 28.2353\% | 41.1463\% | 7.3 | 10.7 | 54\% | 37\% |
| 100+ | 1 | 2 | 0.500000 | 37.1685\% | 51.6818\% | 0.7 | 1.0 | 135\% | 97\% |
| Total | 555 | 22,771 |  |  |  | 547.0 | 525.1 | 101\% | 106\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - HP TP MORTALITY EXPERIENCE OF SERVICE RETIREES <br> WOMEN

| Age | TABLE 1B GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate $(2) /(3)$ | Current <br> (7) / (3) | Proposed <br> (8) / (3) | Current | Proposed | Current $(2) /(7)$ | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 45-49 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 50-54 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 55-59 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 60-64 | 0 | 7 | 0.000000 | 0.6689\% | 1.1710\% | 0.0 | 0.1 | 0\% | 0\% |
| 65-69 | 0 | 17 | 0.000000 | 1.0209\% | 1.8693\% | 0.2 | 0.3 | 0\% | 0\% |
| 70-74 | 0 | 18 | 0.000000 | 1.6526\% | 3.1419\% | 0.3 | 0.6 | 0\% | 0\% |
| 75-79 | 1 | 14 | 0.071429 | 2.8338\% | 5.2804\% | 0.4 | 0.7 | 252\% | 135\% |
| 80-84 | 1 | 8 | 0.125000 | 5.0174\% | 8.4054\% | 0.4 | 0.7 | 249\% | 149\% |
| 85-89 | 1 | 5 | 0.200000 | 8.2438\% | 12.4312\% | 0.4 | 0.6 | 243\% | 161\% |
| 90-94 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 95-99 | 1 | 1 | 1.000000 | 19.1869\% | 21.9385\% | 0.2 | 0.2 | 521\% | 456\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 4 | 70 |  |  |  | 1.9 | 3.2 | 208\% | 124\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - HP TP MORTALITY EXPERIENCE OF SERVICE RETIREES MEN AND WOMEN

|  | TABLE 1C GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Current <br> (7) / (3) | Proposed <br> (8) / (3) | Current | Proposed | Current <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 45-49 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 50-54 | 4 | 449 | 0.008909 | 0.3954\% | 0.2378\% | 1.8 | 1.1 | 225\% | 375\% |
| 55-59 | 12 | 1,905 | 0.006299 | 0.6358\% | 0.3979\% | 12.1 | 7.6 | 99\% | 158\% |
| 60-64 | 70 | 5,474 | 0.012788 | 0.9771\% | 0.7190\% | 53.5 | 39.4 | 131\% | 178\% |
| 65-69 | 112 | 7,084 | 0.015810 | 1.5225\% | 1.2910\% | 107.9 | 91.5 | 104\% | 122\% |
| 70-74 | 90 | 4,099 | 0.021957 | 2.5495\% | 2.2866\% | 104.5 | 93.7 | 86\% | 96\% |
| 75-79 | 87 | 1,833 | 0.047463 | 4.2171\% | 4.1791\% | 77.3 | 76.6 | 113\% | 114\% |
| 80-84 | 76 | 1,185 | 0.064135 | 7.0727\% | 7.5629\% | 83.8 | 89.6 | 91\% | 85\% |
| 85-89 | 75 | 639 | 0.117371 | 11.4379\% | 13.1633\% | 73.1 | 84.1 | 103\% | 89\% |
| 90-94 | 27 | 144 | 0.187500 | 18.5713\% | 22.7764\% | 26.7 | 32.8 | 101\% | 82\% |
| 95-99 | 5 | 27 | 0.185185 | 27.9002\% | 40.4349\% | 7.5 | 10.9 | 66\% | 46\% |
| 100+ | 1 | 2 | 0.500000 | 37.1685\% | 51.6818\% | 0.7 | 1.0 | 135\% | 97\% |
| Total | 559 | 22,841 |  |  |  | 549.0 | 528.3 | 102\% | 106\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - HP TP MORTALITY EXPERIENCE OF SERVICE RETIREES MEN AND WOMEN

| Plan <br> Year <br> Ending <br> June 30, | TABLE 1D <br> Life Years Exposed | Actual <br> Deaths | Expected Deaths | 10-YEAR PERIOD ENDING 6/30/2013 $\qquad$ <br> Mortality Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / <br> Expected | $\begin{aligned} & \hline \text { Actual } \\ & \text { (3) } /(2) \\ & \hline \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 2,531 | 49 | 36.1 | 136\% | 1.9360\% | 1.4279\% |
| 2005 | 2,482 | 54 | 38.0 | 142\% | 2.1757\% | 1.5293\% |
| 2006 | 2,428 | 55 | 40.2 | 137\% | 2.2652\% | 1.6558\% |
| 2007 | 2,373 | 51 | 43.0 | 119\% | 2.1492\% | 1.8108\% |
| 2008 | 2,321 | 52 | 45.5 | 114\% | 2.2404\% | 1.9616\% |
| 2009 | 2,268 | 54 | 48.0 | 113\% | 2.3810\% | 2.1157\% |
| 2010 | 2,213 | 65 | 50.4 | 129\% | 2.9372\% | 2.2766\% |
| 2011 | 2,134 | 56 | 51.9 | 108\% | 2.6242\% | 2.4302\% |
| 2012 | 2,078 | 61 | 48.7 | 125\% | 2.9355\% | 2.3439\% |
| 2013 | 2,013 | 62 | 55.6 | 112\% | 3.0800\% | 2.7621\% |
| Total | 22,841 | 559 | 457.3 | 122\% | $2.4474 \%$ | 2.0022\% |

[^14]
## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - HP TP MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN

| Age | TABLE 2A |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Current | Proposed | Current $\text { (3) } \times(5)$ | Proposed $\text { (3) } \times(6)$ | Current $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 5 | 0.000000 | 0.1831\% | 0.0891\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 9 | 0.000000 | 0.1997\% | 0.1482\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 7 | 0.000000 | 0.2159\% | 0.2073\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 9 | 0.000000 | 0.2319\% | 0.2663\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 1 | 30 | 0.033333 | 0.2476\% | 0.3254\% | 0.1 | 0.1 | 1346\% | 1024\% |
| 46 | 0 | 45 | 0.000000 | 0.2543\% | 0.3844\% | 0.1 | 0.2 | 0\% | 0\% |
| 47 | 0 | 52 | 0.000000 | 0.2597\% | 0.4435\% | 0.1 | 0.2 | 0\% | 0\% |
| 48 | 1 | 46 | 0.021739 | 0.2639\% | 0.4658\% | 0.1 | 0.2 | 824\% | 467\% |
| 49 | 0 | 75 | 0.000000 | 0.3334\% | 0.4882\% | 0.3 | 0.4 | 0\% | 0\% |
| 50 | 0 | 72 | 0.000000 | 0.3956\% | 0.5105\% | 0.3 | 0.4 | 0\% | 0\% |
| 51 | 0 | 80 | 0.000000 | 0.4504\% | 0.5328\% | 0.4 | 0.4 | 0\% | 0\% |
| 52 | 0 | 78 | 0.000000 | 0.4983\% | 0.5551\% | 0.4 | 0.4 | 0\% | 0\% |
| 53 | 1 | 74 | 0.013514 | 0.5168\% | 0.5775\% | 0.4 | 0.4 | 261\% | 234\% |
| 54 | 0 | 72 | 0.000000 | 0.5434\% | 0.6000\% | 0.4 | 0.4 | 0\% | 0\% |
| 55 | 0 | 56 | 0.000000 | 0.5949\% | 0.6224\% | 0.3 | 0.3 | 0\% | 0\% |
| 56 | 1 | 78 | 0.012821 | 0.6505\% | 0.6448\% | 0.5 | 0.5 | 197\% | 199\% |
| 57 | 1 | 72 | 0.013889 | 0.6920\% | 0.6672\% | 0.5 | 0.5 | 201\% | 208\% |
| 58 | 1 | 103 | 0.009709 | 0.7324\% | 0.7265\% | 0.8 | 0.7 | 133\% | 134\% |
| 59 | 2 | 82 | 0.024390 | 0.8330\% | 0.7858\% | 0.7 | 0.6 | 293\% | 310\% |
| 60 | 0 | 105 | 0.000000 | 0.9209\% | 0.8451\% | 1.0 | 0.9 | 0\% | 0\% |
| 61 | 0 | 107 | 0.000000 | 1.0203\% | 0.9044\% | 1.1 | 1.0 | 0\% | 0\% |
| 62 | 1 | 137 | 0.007299 | 1.1155\% | 0.9637\% | 1.5 | 1.3 | 65\% | 76\% |
| 63 | 3 | 129 | 0.023256 | 1.1979\% | 1.0967\% | 1.5 | 1.4 | 194\% | 212\% |
| 64 | 4 | 145 | 0.027586 | 1.3262\% | 1.2297\% | 1.9 | 1.8 | 208\% | 224\% |
| 65 | 4 | 227 | 0.017621 | 1.4319\% | 1.3628\% | 3.3 | 3.1 | 123\% | 129\% |
| 66 | 5 | 290 | 0.017241 | 1.5878\% | 1.4958\% | 4.6 | 4.3 | 109\% | 115\% |
| 67 | 6 | 318 | 0.018868 | 1.7994\% | 1.6288\% | 5.7 | 5.2 | 105\% | 116\% |
| 68 | 6 | 331 | 0.018127 | 2.0018\% | 1.8723\% | 6.6 | 6.2 | 91\% | 97\% |
| 69 | 6 | 296 | 0.020270 | 2.2261\% | 2.1159\% | 6.6 | 6.3 | 91\% | 96\% |
| 70 | 5 | 262 | 0.019084 | 2.4904\% | 2.3594\% | 6.5 | 6.2 | 77\% | 81\% |
| 71 | 1 | 211 | 0.004739 | 2.7697\% | 2.6030\% | 5.8 | 5.5 | 17\% | 18\% |
| 72 | 6 | 191 | 0.031414 | 3.0577\% | 2.8465\% | 5.8 | 5.4 | 103\% | 110\% |
| 73 | 7 | 177 | 0.039548 | 3.4268\% | 3.2374\% | 6.1 | 5.7 | 115\% | 122\% |
| 74 | 4 | 160 | 0.025000 | 3.7387\% | 3.6283\% | 6.0 | 5.8 | 67\% | 69\% |
| 75 | 5 | 114 | 0.043860 | 4.0928\% | 4.0191\% | 4.7 | 4.6 | 107\% | 109\% |
| 76 | 2 | 79 | 0.025316 | 4.7102\% | 4.4100\% | 3.7 | 3.5 | 54\% | 57\% |
| 77 | 2 | 63 | 0.031746 | 5.2979\% | 4.8009\% | 3.3 | 3.0 | 60\% | 66\% |
| 78 | 3 | 51 | 0.058824 | 5.9107\% | 5.3759\% | 3.0 | 2.7 | 100\% | 109\% |
| 79 | 5 | 48 | 0.104167 | 6.4420\% | 5.9510\% | 3.1 | 2.9 | 162\% | 175\% |
| 80 | 2 | 44 | 0.045455 | 6.9811\% | 6.5260\% | 3.1 | 2.9 | 65\% | 70\% |
| 81 | 0 | 18 | 0.000000 | 7.7883\% | 7.1011\% | 1.4 | 1.3 | 0\% | 0\% |
| 82 | 4 | 44 | 0.090909 | 8.7565\% | 7.6761\% | 3.9 | 3.4 | 104\% | 118\% |
| 83 | 3 | 27 | 0.111111 | 9.6617\% | 8.4721\% | 2.6 | 2.3 | 115\% | 131\% |
| 84 | 2 | 33 | 0.060606 | 10.4293\% | 9.2681\% | 3.4 | 3.1 | 58\% | 65\% |
| 85 | 4 | 29 | 0.137931 | 11.5646\% | 10.0641\% | 3.4 | 2.9 | 119\% | 137\% |
| 86 | 4 | 21 | 0.190476 | 13.3141\% | 10.8601\% | 2.8 | 2.3 | 143\% | 175\% |
| 87 | 1 | 20 | 0.050000 | 14.6239\% | 11.6561\% | 2.9 | 2.3 | 34\% | 43\% |
| 88 | 2 | 10 | 0.200000 | 16.2364\% | 12.7099\% | 1.6 | 1.3 | 123\% | 157\% |
| 89 | 3 | 13 | 0.230769 | 17.9673\% | 13.7637\% | 2.3 | 1.8 | 128\% | 168\% |
| 90 | 1 | 2 | 0.500000 | 19.8697\% | 14.8175\% | 0.4 | 0.3 | 252\% | 337\% |
| 91 | 2 | 7 | 0.285714 | 21.6314\% | 15.8713\% | 1.5 | 1.1 | 132\% | 180\% |
| 92 | 0 | 2 | 0.000000 | 23.1317\% | 16.9251\% | 0.5 | 0.3 | 0\% | 0\% |
| 93 | 0 | 1 | 0.000000 | 25.5192\% | 18.2735\% | 0.3 | 0.2 | 0\% | 0\% |
| 94 | 1 | 4 | 0.250000 | 27.4576\% | 19.6219\% | 1.1 | 0.8 | 91\% | 127\% |
| 95 | 0 | 2 | 0.000000 | 28.9236\% | 20.9703\% | 0.6 | 0.4 | 0\% | 0\% |
| 96 | 0 | 1 | 0.000000 | 31.3910\% | 22.3186\% | 0.3 | 0.2 | 0\% | 0\% |
| 97 | 0 | 1 | 0.000000 | 33.0576\% | 23.6670\% | 0.3 | 0.2 | 0\% | 0\% |
| 98 | 0 | 0 | N/A | 34.0444\% | 25.3468\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 36.3323\% | 27.0267\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 112 | 4,765 |  |  |  | 119.6 | 109.8 | 94\% | 102\% |
| 100 or more | 0 | 0 | N/A | 39.2003\% | $32.0661 \%$ | 0 | 0 | 0\% | 0\% |
| Total | 112 | 4,765 |  |  |  | 119.6 | 109.8 | 94\% | 102\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - HP TP MORTALITY EXPERIENCE OF DISABILITY RETIREES WOMEN

|  | TABLE 2B |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Current | Proposed | Current <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Current <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 0 | N/A | 0.0813\% | 0.0891\% | 0 | 0 | 0\% | 0\% |
| 42 | 0 |  | 0.000000 | 0.0921\% | 0.1482\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 5 | 0.000000 | 0.1050\% | 0.2073\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 8 | 0.000000 | 0.1201\% | 0.2663\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 6 | 0.000000 | 0.1358\% | 0.3254\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 6 | 0.000000 | 0.1527\% | 0.3844\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 7 | 0.000000 | 0.1706\% | 0.4435\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 12 | 0.000000 | 0.1906\% | 0.4658\% | 0.0 | 0.1 | 0\% | 0\% |
| 49 | 0 | 14 | 0.000000 | 0.2149\% | 0.4882\% | 0.0 | 0.1 | 0\% | 0\% |
| 50 | 0 | 12 | 0.000000 | 0.2431\% | 0.5105\% | 0.0 | 0.1 | 0\% | 0\% |
| 51 | 0 | 16 | 0.000000 | 0.2639\% | 0.5328\% | 0.0 | 0.1 | 0\% | 0\% |
| 52 | 0 | 14 | 0.000000 | 0.3093\% | 0.5551\% | 0.0 | 0.1 | 0\% | 0\% |
| 53 | 0 | 9 | 0.000000 | 0.3486\% | 0.5775\% | 0.0 | 0.1 | 0\% | 0\% |
| 54 | 0 | 16 | 0.000000 | 0.4000\% | 0.6000\% | 0.1 | 0.1 | 0\% | 0\% |
| 55 | 0 | 8 | 0.000000 | 0.4254\% | 0.6224\% | 0.0 | 0.0 | 0\% | 0\% |
| 56 | 0 | 6 | 0.000000 | 0.4297\% | 0.6448\% | 0.0 | 0.0 | 0\% | 0\% |
| 57 | 0 | 4 | 0.000000 | 0.4460\% | 0.6672\% | 0.0 | 0.0 | 0\% | 0\% |
| 58 | 0 | 3 | 0.000000 | 0.4948\% | 0.7265\% | 0.0 | 0.0 | 0\% | 0\% |
| 59 | 0 | 1 | 0.000000 | 0.5483\% | 0.7858\% | 0.0 | 0.0 | 0\% | 0\% |
| 60 | 0 | 3 | 0.000000 | 0.5910\% | 0.8451\% | 0.0 | 0.0 | 0\% | 0\% |
| 61 | 0 | 1 | 0.000000 | 0.6339\% | 0.9044\% | 0.0 | 0.0 | 0\% | 0\% |
| 62 | 0 | 3 | 0.000000 | 0.7209\% | 0.9637\% | 0.0 | 0.0 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 0.7970\% | 1.0967\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 2 | 0.000000 | 0.8947\% | 1.2297\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 0 | 4 | 0.000000 | 0.9782\% | 1.3628\% | 0.0 | 0.1 | 0\% | 0\% |
| 66 | 0 | 4 | 0.000000 | 1.0645\% | 1.4958\% | 0.0 | 0.1 | 0\% | 0\% |
| 67 | 0 | 3 | 0.000000 | 1.1784\% | 1.6288\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 7 | 0.000000 | 1.2724\% | 1.8723\% | 0.1 | 0.1 | 0\% | 0\% |
| 69 | 0 | 2 | 0.000000 | 1.4296\% | 2.1159\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 2 | 0.000000 | 1.6201\% | 2.3594\% | 0.0 | 0.0 | 0\% | 0\% |
| 71 | 0 | 1 | 0.000000 | 1.8022\% | 2.6030\% | 0.0 | 0.0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 2.0041\% | 2.8465\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 2.2419\% | 3.2374\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 2.4932\% | 3.6283\% | 0 | 0 | 0\% | 0\% |
| 75 | 0 | 0 | N/A | 2.7888\% | 4.0191\% | 0 | 0 | 0\% | 0\% |
| 76 | 0 | 0 | N/A | 3.1254\% | 4.4100\% | 0 | 0 | 0\% | 0\% |
| 77 | 0 | 1 | 0.000000 | 3.3655\% | 4.8009\% | 0.0 | 0.0 | 0\% | 0\% |
| 78 | 0 | 2 | 0.000000 | 3.7332\% | 5.3759\% | 0.1 | 0.1 | 0\% | 0\% |
| 79 | 0 | 0 | N/A | 4.2964\% | 5.9510\% | 0 | 0 | 0\% | 0\% |
| 80 | 0 | 1 | 0.000000 | 4.8965\% | 6.5260\% | 0.0 | 0.1 | 0\% | 0\% |
| 81 | 0 | 0 | N/A | 5.5353\% | 7.1011\% | 0 | 0 | 0\% | 0\% |
| 82 | 0 | 0 | N/A | 6.1127\% | 7.6761\% | 0 | 0 | 0\% | 0\% |
| 83 | 0 | 0 | N/A | 6.7119\% | 8.4721\% | 0 | 0 | 0\% | 0\% |
| 84 | 0 | 0 | N/A | 7.5868\% | 9.2681\% | 0 | 0 | 0\% | 0\% |
| 85 | 0 | 0 | N/A | 8.5302\% | 10.0641\% | 0 | 0 | 0\% | 0\% |
| 86 | 0 | 0 | N/A | 9.2897\% | 10.8601\% | 0 | 0 | 0\% | 0\% |
| 87 | 0 | 0 | N/A | 10.0282\% | 11.6561\% | 0 | 0 | 0\% | 0\% |
| 88 | 0 | 0 | N/A | 11.1199\% | 12.7099\% | 0 | 0 | 0\% | 0\% |
| 89 | 0 | 0 | N/A | 12.6361\% | 13.7637\% | 0 | 0 | 0\% | 0\% |
| 90 | 0 | 0 | N/A | 14.0621\% | 14.8175\% | 0 | 0 | 0\% | 0\% |
| 91 | 0 | 0 | N/A | 15.8180\% | 15.8713\% | 0 | 0 | 0\% | 0\% |
| 92 | 0 | 0 | N/A | 17.0938\% | 16.9251\% | 0 | 0 | 0\% | 0\% |
| 93 | 0 | 0 | N/A | 18.4000\% | 18.2735\% | 0 | 0 | 0\% | 0\% |
| 94 | 0 | 0 | N/A | 19.6185\% | 19.6219\% | 0 | 0 | 0\% | 0\% |
| 95 | 0 | 0 | N/A | 20.7285\% | 20.9703\% | 0 | 0 | 0\% | 0\% |
| 96 | 0 | 0 | N/A | 21.7157\% | 22.3186\% | 0 | 0 | 0\% | 0\% |
| 97 | 0 | 0 | N/A | 22.7838\% | 23.6670\% | 0 | 0 | 0\% | 0\% |
| 98 | 0 | 0 | N/A | 23.3830\% | 25.3468\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 23.7058\% | 27.0267\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 0 | 184 |  |  |  | 0.9 | 1.5 | 0\% | 0\% |
| 100 or more | 0 | 0 | N/A | 25.4498\% | 32.0661\% | 0 | 0 | 0\% | 0\% |
| Total | 0 | 184 |  |  |  | 0.9 | 1.5 | 0\% | 0\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - HP TP MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN AND WOMEN

|  | TABLE 2C |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Current | Proposed | Current $\text { (3) } \times(5)$ | Proposed $(3) \times(6)$ | Current $\text { (2) } /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 5 | 0.000000 | 0.1831\% | 0.0891\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 10 | 0.000000 | 0.1889\% | 0.1482\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 12 | 0.000000 | 0.1697\% | 0.2073\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 17 | 0.000000 | 0.1793\% | 0.2663\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 1 | 36 | 0.027778 | 0.2290\% | 0.3254\% | 0.1 | 0.1 | 1213\% | 854\% |
| 46 | 0 | 51 | 0.000000 | 0.2423\% | 0.3844\% | 0.1 | 0.2 | 0\% | 0\% |
| 47 | 0 | 59 | 0.000000 | 0.2491\% | 0.4435\% | 0.1 | 0.3 | 0\% | 0\% |
| 48 | 1 | 58 | 0.017241 | 0.2487\% | 0.4658\% | 0.1 | 0.3 | 693\% | 370\% |
| 49 | 0 | 89 | 0.000000 | 0.3148\% | 0.4882\% | 0.3 | 0.4 | 0\% | 0\% |
| 50 | 0 | 84 | 0.000000 | 0.3738\% | 0.5105\% | 0.3 | 0.4 | 0\% | 0\% |
| 51 | 0 | 96 | 0.000000 | 0.4193\% | 0.5328\% | 0.4 | 0.5 | 0\% | 0\% |
| 52 | 0 | 92 | 0.000000 | 0.4695\% | 0.5551\% | 0.4 | 0.5 | 0\% | 0\% |
| 53 | 1 | 83 | 0.012048 | 0.4986\% | 0.5775\% | 0.4 | 0.5 | 242\% | 209\% |
| 54 | 0 | 88 | 0.000000 | 0.5173\% | 0.6000\% | 0.5 | 0.5 | 0\% | 0\% |
| 55 | 0 | 64 | 0.000000 | 0.5737\% | 0.6224\% | 0.4 | 0.4 | 0\% | 0\% |
| 56 | 1 | 84 | 0.011905 | 0.6347\% | 0.6448\% | 0.5 | 0.5 | 188\% | 185\% |
| 57 | 1 | 76 | 0.013158 | 0.6791\% | 0.6672\% | 0.5 | 0.5 | 194\% | 197\% |
| 58 | 1 | 106 | 0.009434 | 0.7257\% | 0.7265\% | 0.8 | 0.8 | 130\% | 130\% |
| 59 | 2 | 83 | 0.024096 | 0.8296\% | 0.7858\% | 0.7 | 0.7 | 290\% | 307\% |
| 60 | 0 | 108 | 0.000000 | 0.9117\% | 0.8451\% | 1.0 | 0.9 | 0\% | 0\% |
| 61 | 0 | 108 | 0.000000 | 1.0167\% | 0.9044\% | 1.1 | 1.0 | 0\% | 0\% |
| 62 | 1 | 140 | 0.007143 | 1.1070\% | 0.9637\% | 1.5 | 1.3 | 65\% | 74\% |
| 63 | 3 | 129 | 0.023256 | 1.1979\% | 1.0967\% | 1.5 | 1.4 | 194\% | 212\% |
| 64 | 4 | 147 | 0.027211 | 1.3203\% | 1.2297\% | 1.9 | 1.8 | 206\% | 221\% |
| 65 | 4 | 231 | 0.017316 | 1.4240\% | 1.3628\% | 3.3 | 3.1 | 122\% | 127\% |
| 66 | 5 | 294 | 0.017007 | 1.5807\% | 1.4958\% | 4.6 | 4.4 | 108\% | 114\% |
| 67 | 6 | 321 | 0.018692 | 1.7936\% | 1.6288\% | 5.8 | 5.2 | 104\% | 115\% |
| 68 | 6 | 338 | 0.017751 | 1.9867\% | 1.8723\% | 6.7 | 6.3 | 89\% | 95\% |
| 69 | 6 | 298 | 0.020134 | 2.2208\% | 2.1159\% | 6.6 | 6.3 | 91\% | 95\% |
| 70 | 5 | 264 | 0.018939 | 2.4838\% | 2.3594\% | 6.6 | 6.2 | 76\% | 80\% |
| 71 | 1 | 212 | 0.004717 | 2.7651\% | 2.6030\% | 5.9 | 5.5 | 17\% | 18\% |
| 72 | 6 | 191 | 0.031414 | 3.0577\% | 2.8465\% | 5.8 | 5.4 | 103\% | 110\% |
| 73 | 7 | 177 | 0.039548 | 3.4268\% | 3.2374\% | 6.1 | 5.7 | 115\% | 122\% |
| 74 | 4 | 160 | 0.025000 | 3.7387\% | 3.6283\% | 6.0 | 5.8 | 67\% | 69\% |
| 75 | 5 | 114 | 0.043860 | 4.0928\% | 4.0191\% | 4.7 | 4.6 | 107\% | 109\% |
| 76 | 2 | 79 | 0.025316 | 4.7102\% | 4.4100\% | 3.7 | 3.5 | 54\% | 57\% |
| 77 | 2 | 64 | 0.031250 | 5.2677\% | 4.8009\% | 3.4 | 3.1 | 59\% | 65\% |
| 78 | 3 | 53 | 0.056604 | 5.8285\% | 5.3759\% | 3.1 | 2.8 | 97\% | 105\% |
| 79 | 5 | 48 | 0.104167 | 6.4420\% | 5.9510\% | 3.1 | 2.9 | 162\% | 175\% |
| 80 | 2 | 45 | 0.044444 | 6.9348\% | 6.5260\% | 3.1 | 2.9 | 64\% | 68\% |
| 81 | 0 | 18 | 0.000000 | 7.7883\% | 7.1011\% | 1.4 | 1.3 | 0\% | 0\% |
| 82 | 4 | 44 | 0.090909 | 8.7565\% | 7.6761\% | 3.9 | 3.4 | 104\% | 118\% |
| 83 | 3 | 27 | 0.111111 | 9.6617\% | 8.4721\% | 2.6 | 2.3 | 115\% | 131\% |
| 84 | 2 | 33 | 0.060606 | 10.4293\% | 9.2681\% | 3.4 | 3.1 | 58\% | 65\% |
| 85 | 4 | 29 | 0.137931 | 11.5646\% | 10.0641\% | 3.4 | 2.9 | 119\% | 137\% |
| 86 | 4 | 21 | 0.190476 | 13.3141\% | 10.8601\% | 2.8 | 2.3 | 143\% | 175\% |
| 87 | 1 | 20 | 0.050000 | 14.6239\% | 11.6561\% | 2.9 | 2.3 | 34\% | 43\% |
| 88 | 2 | 10 | 0.200000 | 16.2364\% | 12.7099\% | 1.6 | 1.3 | 123\% | 157\% |
| 89 | 3 | 13 | 0.230769 | 17.9673\% | 13.7637\% | 2.3 | 1.8 | 128\% | 168\% |
| 90 | 1 | 2 | 0.500000 | 19.8697\% | 14.8175\% | 0.4 | 0.3 | 252\% | 337\% |
| 91 | 2 | 7 | 0.285714 | 21.6314\% | 15.8713\% | 1.5 | 1.1 | 132\% | 180\% |
| 92 | 0 | 2 | 0.000000 | 23.1317\% | 16.9251\% | 0.5 | 0.3 | 0\% | 0\% |
| 93 | 0 | 1 | 0.000000 | 25.5192\% | 18.2735\% | 0.3 | 0.2 | 0\% | 0\% |
| 94 | 1 | 4 | 0.250000 | 27.4576\% | 19.6219\% | 1.1 | 0.8 | 91\% | 127\% |
| 95 | 0 | 2 | 0.000000 | 28.9236\% | 20.9703\% | 0.6 | 0.4 | 0\% | 0\% |
| 96 | 0 | 1 | 0.000000 | 31.3910\% | 22.3186\% | 0.3 | 0.2 | 0\% | 0\% |
| 97 | 0 | 1 | 0.000000 | 33.0576\% | 23.6670\% | 0.3 | 0.2 | 0\% | 0\% |
| 98 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 112 | 4,949 |  |  |  | 120.6 | 111.3 | 93\% | 101\% |
| 100 or more | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| Total | 112 | 4,949 |  |  |  | 120.6 | 111.3 | 93\% | 101\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - HP TP MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN

|  | TABLE 2A GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Current $(7) /(3)$ | Proposed <br> (8) / (3) | Current | Proposed | Current $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 30 | 0.000000 | 0.2104\% | 0.1876\% | 0.1 | 0.1 | 0\% | 0\% |
| 45-49 | 2 | 248 | 0.008065 | 0.2803\% | 0.4361\% | 0.7 | 1.1 | 288\% | 185\% |
| 50-54 | 1 | 376 | 0.002660 | 0.4807\% | 0.5548\% | 1.8 | 2.1 | 55\% | 48\% |
| 55-59 | 5 | 391 | 0.012788 | 0.7100\% | 0.6968\% | 2.8 | 2.7 | 180\% | 184\% |
| 60-64 | 8 | 623 | 0.012841 | 1.1325\% | 1.0230\% | 7.1 | 6.4 | 113\% | 126\% |
| 65-69 | 27 | 1,462 | 0.018468 | 1.8326\% | 1.7149\% | 26.8 | 25.1 | 101\% | 108\% |
| 70-74 | 23 | 1,001 | 0.022977 | 3.0226\% | 2.8617\% | 30.3 | 28.6 | 76\% | 80\% |
| 75-79 | 17 | 355 | 0.047887 | 5.0229\% | 4.7010\% | 17.8 | 16.7 | 95\% | 102\% |
| 80-84 | 11 | 166 | 0.066265 | 8.6607\% | 7.7549\% | 14.4 | 12.9 | 77\% | 85\% |
| 85-89 | 14 | 93 | 0.150538 | 14.0149\% | 11.3879\% | 13.0 | 10.6 | 107\% | 132\% |
| 90-94 | 4 | 16 | 0.250000 | 23.2983\% | 16.9591\% | 3.7 | 2.7 | 107\% | 147\% |
| 95-99 | 0 | 4 | 0.000000 | 30.5740\% | 21.9815\% | 1.2 | 0.9 | 0\% | 0\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 112 | 4,765 |  |  |  | 119.6 | 109.8 | 94\% | 102\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - HP TP MORTALITY EXPERIENCE OF DISABILITY RETIREES WOMEN

|  | TABLE 2B GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate (2) / (3) | Current $(7) /(3)$ | Proposed $(8) /(3)$ | Current | Proposed | Current <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 14 | 0.000000 | 0.1127\% | 0.2368\% | 0.0 | 0.0 | 0\% | 0\% |
| 45-49 | 0 | 45 | 0.000000 | 0.1827\% | 0.4397\% | 0.1 | 0.2 | 0\% | 0\% |
| 50-54 | 0 | 67 | 0.000000 | 0.3135\% | 0.5555\% | 0.2 | 0.4 | 0\% | 0\% |
| 55-59 | 0 | 22 | 0.000000 | 0.4454\% | 0.6583\% | 0.1 | 0.1 | 0\% | 0\% |
| 60-64 | 0 | 9 | 0.000000 | 0.7066\% | 0.9767\% | 0.1 | 0.1 | 0\% | 0\% |
| 65-69 | 0 | 20 | 0.000000 | 1.1736\% | 1.6829\% | 0.2 | 0.3 | 0\% | 0\% |
| 70-74 | 0 | 3 | 0.000000 | 1.6808\% | 2.4406\% | 0.1 | 0.1 | 0\% | 0\% |
| 75-79 | 0 | 3 | 0.000000 | 3.6106\% | 5.1843\% | 0.1 | 0.2 | 0\% | 0\% |
| 80-84 | 0 | 1 | 0.000000 | 4.8965\% | 6.5260\% | 0.0 | 0.1 | 0\% | 0\% |
| 85-89 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 90-94 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 95-99 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 0 | 184 |  |  |  | 0.9 | 1.5 | 0\% | 0\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - HP TP MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN AND WOMEN

|  | TABLE 2C GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Current <br> (7) / (3) | Proposed <br> (8) / (3) | Current | Proposed | Current <br> (2) / (7) | Proposed $(\mathbf{2}) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 44 | 0.000000 | 0.1793\% | 0.2032\% | 0.1 | 0.1 | 0\% | 0\% |
| 45-49 | 2 | 293 | 0.006826 | 0.2653\% | 0.4367\% | 0.8 | 1.3 | 257\% | 156\% |
| 50-54 | 1 | 443 | 0.002257 | 0.4554\% | 0.5549\% | 2.0 | 2.5 | 50\% | 41\% |
| 55-59 | 5 | 413 | 0.012107 | 0.6959\% | 0.6947\% | 2.9 | 2.9 | 174\% | 174\% |
| 60-64 | 8 | 632 | 0.012658 | 1.1264\% | 1.0223\% | 7.1 | 6.5 | 112\% | 124\% |
| 65-69 | 27 | 1,482 | 0.018219 | 1.8237\% | 1.7144\% | 27.0 | 25.4 | 100\% | 106\% |
| 70-74 | 23 | 1,004 | 0.022908 | 3.0186\% | 2.8605\% | 30.3 | 28.7 | 76\% | 80\% |
| 75-79 | 17 | 358 | 0.047486 | 5.0110\% | 4.7050\% | 17.9 | 16.8 | 95\% | 101\% |
| 80-84 | 11 | 167 | 0.065868 | 8.6382\% | 7.7475\% | 14.4 | 12.9 | 76\% | 85\% |
| 85-89 | 14 | 93 | 0.150538 | 14.0149\% | 11.3879\% | 13.0 | 10.6 | 107\% | 132\% |
| 90-94 | 4 | 16 | 0.250000 | 23.2983\% | 16.9591\% | 3.7 | 2.7 | 107\% | 147\% |
| 95-99 | 0 | 4 | 0.000000 | 30.5740\% | 21.9815\% | 1.2 | 0.9 | 0\% | 0\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 112 | 4,949 |  |  |  | 120.6 | 111.3 | 93\% | 101\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - HP TP MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN

|  | TABLE 2A |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Current | Proposed | Current $(3) \times(5)$ | Proposed $(3) \times(6)$ | Current $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 56 | 0.000000 | 0.1881\% | 0.0967\% | 0.1 | 0.1 | 0\% | 0\% |
| 42 | 0 | 74 | 0.000000 | 0.2058\% | 0.1614\% | 0.2 | 0.1 | 0\% | 0\% |
| 43 | 0 | 94 | 0.000000 | 0.2232\% | 0.2261\% | 0.2 | 0.2 | 0\% | 0\% |
| 44 | 0 | 112 | 0.000000 | 0.2404\% | 0.2903\% | 0.3 | 0.3 | 0\% | 0\% |
| 45 | 1 | 139 | 0.007194 | 0.2576\% | 0.3539\% | 0.4 | 0.5 | 279\% | 203\% |
| 46 | 0 | 151 | 0.000000 | 0.2653\% | 0.4165\% | 0.4 | 0.6 | 0\% | 0\% |
| 47 | 0 | 175 | 0.000000 | 0.2718\% | 0.4781\% | 0.5 | 0.8 | 0\% | 0\% |
| 48 | 1 | 162 | 0.006173 | 0.2770\% | 0.4991\% | 0.4 | 0.8 | 223\% | 124\% |
| 49 | 2 | 190 | 0.010526 | 0.3510\% | 0.5195\% | 0.7 | 1.0 | 300\% | 203\% |
| 50 | 0 | 180 | 0.000000 | 0.4178\% | 0.5390\% | 0.8 | 1.0 | 0\% | 0\% |
| 51 | 1 | 199 | 0.005025 | 0.4771\% | 0.5579\% | 0.9 | 1.1 | 105\% | 90\% |
| 52 | 1 | 204 | 0.004902 | 0.5294\% | 0.5760\% | 1.1 | 1.2 | 93\% | 85\% |
| 53 | 1 | 204 | 0.004902 | 0.5490\% | 0.5938\% | 1.1 | 1.2 | 89\% | 83\% |
| 54 | 2 | 219 | 0.009132 | 0.5774\% | 0.6119\% | 1.3 | 1.3 | 158\% | 149\% |
| 55 | 0 | 220 | 0.000000 | 0.6301\% | 0.6310\% | 1.4 | 1.4 | 0\% | 0\% |
| 56 | 3 | 265 | 0.011321 | 0.6870\% | 0.6515\% | 1.8 | 1.7 | 165\% | 174\% |
| 57 | 1 | 257 | 0.003891 | 0.7285\% | 0.6738\% | 1.9 | 1.7 | 53\% | 58\% |
| 58 | 1 | 317 | 0.003155 | 0.7688\% | 0.7354\% | 2.4 | 2.3 | 41\% | 43\% |
| 59 | 4 | 363 | 0.011019 | 0.8743\% | 0.7991\% | 3.2 | 2.9 | 126\% | 138\% |
| 60 | 4 | 464 | 0.008621 | 0.9666\% | 0.8653\% | 4.5 | 4.0 | 89\% | 100\% |
| 61 | 3 | 517 | 0.005803 | 1.0676\% | 0.9332\% | 5.5 | 4.8 | 54\% | 62\% |
| 62 | 6 | 590 | 0.010169 | 1.1672\% | 1.0025\% | 6.9 | 5.9 | 87\% | 101\% |
| 63 | 7 | 624 | 0.011218 | 1.2497\% | 1.1496\% | 7.8 | 7.2 | 90\% | 98\% |
| 64 | 13 | 642 | 0.020249 | 1.3835\% | 1.2977\% | 8.9 | 8.3 | 146\% | 156\% |
| 65 | 8 | 677 | 0.011817 | 1.4938\% | 1.4463\% | 10.1 | 9.8 | 79\% | 82\% |
| 66 | 11 | 693 | 0.015873 | 1.6513\% | 1.5949\% | 11.4 | 11.1 | 96\% | 100\% |
| 67 | 17 | 680 | 0.025000 | 1.8714\% | 1.7437\% | 12.7 | 11.9 | 134\% | 143\% |
| 68 | 13 | 645 | 0.020155 | 2.0883\% | 2.0106\% | 13.5 | 13.0 | 97\% | 100\% |
| 69 | 12 | 555 | 0.021622 | 2.3223\% | 2.2784\% | 12.9 | 12.6 | 93\% | 95\% |
| 70 | 10 | 476 | 0.021008 | 2.6060\% | 2.5464\% | 12.4 | 12.1 | 81\% | 83\% |
| 71 | 9 | 395 | 0.022785 | 2.8981\% | 2.8147\% | 11.4 | 11.1 | 79\% | 81\% |
| 72 | 11 | 337 | 0.032641 | 3.1996\% | 3.0831\% | 10.8 | 10.4 | 102\% | 106\% |
| 73 | 12 | 293 | 0.040956 | 3.5857\% | 3.5112\% | 10.5 | 10.3 | 114\% | 117\% |
| 74 | 9 | 245 | 0.036735 | 3.9121\% | 3.9388\% | 9.6 | 9.6 | 94\% | 93\% |
| 75 | 6 | 191 | 0.031414 | 4.2697\% | 4.3649\% | 8.2 | 8.3 | 74\% | 72\% |
| 76 | 4 | 165 | 0.024242 | 4.9137\% | 4.7904\% | 8.1 | 7.9 | 49\% | 51\% |
| 77 | 12 | 146 | 0.082192 | 5.5100\% | 5.2134\% | 8.0 | 7.6 | 149\% | 158\% |
| 78 | 10 | 123 | 0.081301 | 6.1287\% | 5.8330\% | 7.5 | 7.2 | 133\% | 139\% |
| 79 | 6 | 105 | 0.057143 | 6.6593\% | 6.4503\% | 7.0 | 6.8 | 86\% | 89\% |
| 80 | 9 | 112 | 0.080357 | 7.1948\% | 7.0656\% | 8.1 | 7.9 | 112\% | 114\% |
| 81 | 4 | 79 | 0.050633 | 8.0024\% | 7.6779\% | 6.3 | 6.1 | 63\% | 66\% |
| 82 | 7 | 95 | 0.073684 | 8.9701\% | 8.2878\% | 8.5 | 7.9 | 82\% | 89\% |
| 83 | 6 | 71 | 0.084507 | 9.8973\% | 9.1341\% | 7.0 | 6.5 | 85\% | 93\% |
| 84 | 5 | 69 | 0.072464 | 10.6514\% | 9.9780\% | 7.3 | 6.9 | 68\% | 73\% |
| 85 | 9 | 58 | 0.155172 | 11.8109\% | 10.8194\% | 6.9 | 6.3 | 131\% | 143\% |
| 86 | 4 | 40 | 0.100000 | 13.5976\% | 11.6572\% | 5.4 | 4.7 | 74\% | 86\% |
| 87 | 4 | 37 | 0.108108 | 14.8903\% | 12.4912\% | 5.5 | 4.6 | 73\% | 87\% |
| 88 | 4 | 22 | 0.181818 | 16.4824\% | 13.5940\% | 3.6 | 3.0 | 110\% | 134\% |
| 89 | 5 | 21 | 0.238095 | 18.2395\% | 14.6881\% | 3.8 | 3.1 | 131\% | 162\% |
| 90 | 1 | 7 | 0.142857 | 20.1100\% | 15.7723\% | 1.4 | 1.1 | 71\% | 91\% |
| 91 | 3 | 10 | 0.300000 | 21.8931\% | 16.8458\% | 2.2 | 1.7 | 137\% | 178\% |
| 92 | 0 | 4 | 0.000000 | 23.3411\% | 17.9039\% | 0.9 | 0.7 | 0\% | 0\% |
| 93 | 0 | 2 | 0.000000 | 25.7503\% | 19.2517\% | 0.5 | 0.4 | 0\% | 0\% |
| 94 | 1 | 4 | 0.250000 | 27.7062\% | 20.5947\% | 1.1 | 0.8 | 90\% | 121\% |
| 95 | 0 | 2 | 0.000000 | 29.0978\% | 21.9385\% | 0.6 | 0.4 | 0\% | 0\% |
| 96 | 0 | 1 | 0.000000 | 31.5801\% | 23.2924\% | 0.3 | 0.2 | 0\% | 0\% |
| 97 | 0 | 1 | 0.000000 | 33.2567\% | 24.6395\% | 0.3 | 0.2 | 0\% | 0\% |
| 98 | 0 | 0 | N/A | 34.1468\% | 26.3243\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 36.4415\% | 28.0036\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 263 | 12,779 |  |  |  | 276.6 | 262.8 | 95\% | 100\% |
| 100 or more | 0 | 0 | N/A | 39.2003\% | $33.2252 \%$ | 0 | 0 | 0\% | 0\% |
| Total | 263 | 12,779 |  |  |  | 276.6 | 262.8 | 95\% | 100\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - HP TP MORTALITY EXPERIENCE OF DISABILITY RETIREES WOMEN

| Age | TABLE 2B |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013Expected Deaths |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Current | Proposed | Current $(3) \times(5)$ | Proposed $(3) \times(6)$ | Current $(2) /(7)$ | Proposed $\text { (2) } /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 11 | 0.000000 | 0.0851\% | 0.0967\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 16 | 0.000000 | 0.0964\% | 0.1614\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 20 | 0.000000 | 0.1099\% | 0.2261\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 24 | 0.000000 | 0.1257\% | 0.2903\% | 0.0 | 0.1 | 0\% | 0\% |
| 45 | 0 | 27 | 0.000000 | 0.1425\% | 0.3539\% | 0.0 | 0.1 | 0\% | 0\% |
| 46 | 0 | 27 | 0.000000 | 0.1608\% | 0.4165\% | 0.0 | 0.1 | 0\% | 0\% |
| 47 | 0 | 29 | 0.000000 | 0.1801\% | 0.4781\% | 0.1 | 0.1 | 0\% | 0\% |
| 48 | 1 | 32 | 0.031250 | 0.2013\% | 0.4991\% | 0.1 | 0.2 | 1552\% | 626\% |
| 49 | 0 | 31 | 0.000000 | 0.2269\% | 0.5195\% | 0.1 | 0.2 | 0\% | 0\% |
| 50 | 0 | 26 | 0.000000 | 0.2559\% | 0.5390\% | 0.1 | 0.1 | 0\% | 0\% |
| 51 | 0 | 26 | 0.000000 | 0.2770\% | 0.5579\% | 0.1 | 0.1 | 0\% | 0\% |
| 52 | 0 | 23 | 0.000000 | 0.3227\% | 0.5760\% | 0.1 | 0.1 | 0\% | 0\% |
| 53 | 0 | 15 | 0.000000 | 0.3615\% | 0.5938\% | 0.1 | 0.1 | 0\% | 0\% |
| 54 | 0 | 19 | 0.000000 | 0.4122\% | 0.6119\% | 0.1 | 0.1 | 0\% | 0\% |
| 55 | 0 | 11 | 0.000000 | 0.4358\% | 0.6310\% | 0.0 | 0.1 | 0\% | 0\% |
| 56 | 0 | 9 | 0.000000 | 0.4376\% | 0.6515\% | 0.0 | 0.1 | 0\% | 0\% |
| 57 | 0 | 6 | 0.000000 | 0.4528\% | 0.6738\% | 0.0 | 0.0 | 0\% | 0\% |
| 58 | 0 | 6 | 0.000000 | 0.5023\% | 0.7354\% | 0.0 | 0.0 | 0\% | 0\% |
| 59 | 0 | 5 | 0.000000 | 0.5566\% | 0.7991\% | 0.0 | 0.0 | 0\% | 0\% |
| 60 | 0 | 7 | 0.000000 | 0.5999\% | 0.8653\% | 0.0 | 0.1 | 0\% | 0\% |
| 61 | 0 | 6 | 0.000000 | 0.6435\% | 0.9332\% | 0.0 | 0.1 | 0\% | 0\% |
| 62 | 0 | 9 | 0.000000 | 0.7318\% | 1.0025\% | 0.1 | 0.1 | 0\% | 0\% |
| 63 | 0 | 6 | 0.000000 | 0.8091\% | 1.1496\% | 0.0 | 0.1 | 0\% | 0\% |
| 64 | 0 | 7 | 0.000000 | 0.9083\% | 1.2977\% | 0.1 | 0.1 | 0\% | 0\% |
| 65 | 0 | 7 | 0.000000 | 0.9930\% | 1.4463\% | 0.1 | 0.1 | 0\% | 0\% |
| 66 | 0 | 7 | 0.000000 | 1.0806\% | 1.5949\% | 0.1 | 0.1 | 0\% | 0\% |
| 67 | 0 | 4 | 0.000000 | 1.1963\% | 1.7437\% | 0.0 | 0.1 | 0\% | 0\% |
| 68 | 0 | 7 | 0.000000 | 1.2916\% | 2.0106\% | 0.1 | 0.1 | 0\% | 0\% |
| 69 | 0 | 2 | 0.000000 | 1.4512\% | 2.2784\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 2 | 0.000000 | 1.6447\% | 2.5464\% | 0.0 | 0.1 | 0\% | 0\% |
| 71 | 0 | 2 | 0.000000 | 1.8351\% | 2.8147\% | 0.0 | 0.1 | 0\% | 0\% |
| 72 | 0 | 1 | 0.000000 | 2.0406\% | 3.0831\% | 0.0 | 0.0 | 0\% | 0\% |
| 73 | 0 | 1 | 0.000000 | 2.2896\% | 3.5112\% | 0.0 | 0.0 | 0\% | 0\% |
| 74 | 0 | 1 | 0.000000 | 2.5463\% | 3.9388\% | 0.0 | 0.0 | 0\% | 0\% |
| 75 | 0 | 1 | 0.000000 | 2.8568\% | 4.3649\% | 0.0 | 0.0 | 0\% | 0\% |
| 76 | 0 | 1 | 0.000000 | 3.2016\% | 4.7904\% | 0.0 | 0.0 | 0\% | 0\% |
| 77 | 0 | 1 | 0.000000 | 3.4372\% | 5.2134\% | 0.0 | 0.1 | 0\% | 0\% |
| 78 | 0 | 2 | 0.000000 | 3.8127\% | 5.8330\% | 0.1 | 0.1 | 0\% | 0\% |
| 79 | 0 | 0 | N/A | 4.3879\% | 6.4503\% | 0 | 0 | 0\% | 0\% |
| 80 | 0 | 1 | 0.000000 | 5.0008\% | 7.0656\% | 0.1 | 0.1 | 0\% | 0\% |
| 81 | 0 | 0 | N/A | 5.6532\% | 7.6779\% | 0 | 0 | 0\% | 0\% |
| 82 | 0 | 0 | N/A | 6.2429\% | 8.2878\% | 0 | 0 | 0\% | 0\% |
| 83 | 0 | 0 | N/A | 6.8548\% | 9.1341\% | 0 | 0 | 0\% | 0\% |
| 84 | 0 | 0 | N/A | 7.7484\% | 9.9780\% | 0 | 0 | 0\% | 0\% |
| 85 | 0 | 0 | N/A | 8.6856\% | 10.8194\% | 0 | 0 | 0\% | 0\% |
| 86 | 0 | 0 | N/A | 9.4305\% | 11.6572\% | 0 | 0 | 0\% | 0\% |
| 87 | 0 | 0 | N/A | 10.1495\% | 12.4912\% | 0 | 0 | 0\% | 0\% |
| 88 | 0 | 0 | N/A | 11.2544\% | 13.5940\% | 0 | 0 | 0\% | 0\% |
| 89 | 0 | 0 | N/A | 12.7505\% | 14.6881\% | 0 | 0 | 0\% | 0\% |
| 90 | 0 | 0 | N/A | 14.1894\% | 15.7723\% | 0 | 0 | 0\% | 0\% |
| 91 | 0 | 0 | N/A | 15.9612\% | 16.8458\% | 0 | 0 | 0\% | 0\% |
| 92 | 0 | 0 | N/A | 17.2486\% | 17.9039\% | 0 | 0 | 0\% | 0\% |
| 93 | 0 | 0 | N/A | 18.5108\% | 19.2517\% | 0 | 0 | 0\% | 0\% |
| 94 | 0 | 0 | N/A | 19.7367\% | 20.5947\% | 0 | 0 | 0\% | 0\% |
| 95 | 0 | 0 | N/A | 20.8534\% | 21.9385\% | 0 | 0 | 0\% | 0\% |
| 96 | 0 | 0 | N/A | 21.8465\% | 23.2924\% | 0 | 0 | 0\% | 0\% |
| 97 | 0 | 0 | N/A | 22.8523\% | 24.6395\% | 0 | 0 | 0\% | 0\% |
| 98 | 0 | 0 | N/A | 23.4533\% | 26.3243\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 23.7771\% | 28.0036\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 1 | 438 |  |  |  | 1.8 | 3.1 | 56\% | 33\% |
| 100 or more | 0 | 0 | N/A | 25.4498\% | 33.2252\% | 0 | 0 | 0\% | 0\% |
| Total | 1 | 438 |  |  |  | 1.8 | 3.1 | 56\% | 33\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - HP TP MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN AND WOMEN

| Age | TABLE 2C |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate (2) / (3) | Current | Proposed | Current $(3) \times(5)$ | Proposed $(3) \times(6)$ | Current <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 67 | 0.000000 | 0.1712\% | 0.0967\% | 0.1 | 0.1 | 0\% | 0\% |
| 42 | 0 | 90 | 0.000000 | 0.1864\% | 0.1614\% | 0.2 | 0.1 | 0\% | 0\% |
| 43 | 0 | 114 | 0.000000 | 0.2033\% | 0.2261\% | 0.2 | 0.3 | 0\% | 0\% |
| 44 | 0 | 136 | 0.000000 | 0.2202\% | 0.2903\% | 0.3 | 0.4 | 0\% | 0\% |
| 45 | 1 | 166 | 0.006024 | 0.2389\% | 0.3539\% | 0.4 | 0.6 | 252\% | 170\% |
| 46 | 0 | 178 | 0.000000 | 0.2494\% | 0.4165\% | 0.4 | 0.7 | 0\% | 0\% |
| 47 | 0 | 204 | 0.000000 | 0.2588\% | 0.4781\% | 0.5 | 1.0 | 0\% | 0\% |
| 48 | 2 | 194 | 0.010309 | 0.2645\% | 0.4991\% | 0.5 | 1.0 | 390\% | 207\% |
| 49 | 2 | 221 | 0.009050 | 0.3336\% | 0.5195\% | 0.7 | 1.1 | 271\% | 174\% |
| 50 | 0 | 206 | 0.000000 | 0.3974\% | 0.5390\% | 0.8 | 1.1 | 0\% | 0\% |
| 51 | 1 | 225 | 0.004444 | 0.4540\% | 0.5579\% | 1.0 | 1.3 | 98\% | 80\% |
| 52 | 1 | 227 | 0.004405 | 0.5085\% | 0.5760\% | 1.2 | 1.3 | 87\% | 76\% |
| 53 | 1 | 219 | 0.004566 | 0.5362\% | 0.5938\% | 1.2 | 1.3 | 85\% | 77\% |
| 54 | 2 | 238 | 0.008403 | 0.5642\% | 0.6119\% | 1.3 | 1.5 | 149\% | 137\% |
| 55 | 0 | 231 | 0.000000 | 0.6208\% | 0.6310\% | 1.4 | 1.5 | 0\% | 0\% |
| 56 | 3 | 274 | 0.010949 | 0.6788\% | 0.6515\% | 1.9 | 1.8 | 161\% | 168\% |
| 57 | 1 | 263 | 0.003802 | 0.7222\% | 0.6738\% | 1.9 | 1.8 | 53\% | 56\% |
| 58 | 1 | 323 | 0.003096 | 0.7638\% | 0.7354\% | 2.5 | 2.4 | 41\% | 42\% |
| 59 | 4 | 368 | 0.010870 | 0.8700\% | 0.7991\% | 3.2 | 2.9 | 125\% | 136\% |
| 60 | 4 | 471 | 0.008493 | 0.9612\% | 0.8653\% | 4.5 | 4.1 | 88\% | 98\% |
| 61 | 3 | 523 | 0.005736 | 1.0627\% | 0.9332\% | 5.6 | 4.9 | 54\% | 61\% |
| 62 | 6 | 599 | 0.010017 | 1.1607\% | 1.0025\% | 7.0 | 6.0 | 86\% | 100\% |
| 63 | 7 | 630 | 0.011111 | 1.2455\% | 1.1496\% | 7.8 | 7.2 | 89\% | 97\% |
| 64 | 13 | 649 | 0.020031 | 1.3784\% | 1.2977\% | 8.9 | 8.4 | 145\% | 154\% |
| 65 | 8 | 684 | 0.011696 | 1.4887\% | 1.4463\% | 10.2 | 9.9 | 79\% | 81\% |
| 66 | 11 | 700 | 0.015714 | 1.6456\% | 1.5949\% | 11.5 | 11.2 | 95\% | 99\% |
| 67 | 17 | 684 | 0.024854 | 1.8675\% | 1.7437\% | 12.8 | 11.9 | 133\% | 143\% |
| 68 | 13 | 652 | 0.019939 | 2.0797\% | 2.0106\% | 13.6 | 13.1 | 96\% | 99\% |
| 69 | 12 | 557 | 0.021544 | 2.3192\% | 2.2784\% | 12.9 | 12.7 | 93\% | 95\% |
| 70 | 10 | 478 | 0.020921 | 2.6020\% | 2.5464\% | 12.4 | 12.2 | 80\% | 82\% |
| 71 | 9 | 397 | 0.022670 | 2.8927\% | 2.8147\% | 11.5 | 11.2 | 78\% | 81\% |
| 72 | 11 | 338 | 0.032544 | 3.1962\% | 3.0831\% | 10.8 | 10.4 | 102\% | 106\% |
| 73 | 12 | 294 | 0.040816 | 3.5813\% | 3.5112\% | 10.5 | 10.3 | 114\% | 116\% |
| 74 | 9 | 246 | 0.036585 | 3.9065\% | 3.9388\% | 9.6 | 9.7 | 94\% | 93\% |
| 75 | 6 | 192 | 0.031250 | 4.2623\% | 4.3649\% | 8.2 | 8.4 | 73\% | 72\% |
| 76 | 4 | 166 | 0.024096 | 4.9034\% | 4.7904\% | 8.1 | 8.0 | 49\% | 50\% |
| 77 | 12 | 147 | 0.081633 | 5.4959\% | 5.2134\% | 8.1 | 7.7 | 149\% | 157\% |
| 78 | 10 | 125 | 0.080000 | 6.0916\% | 5.8330\% | 7.6 | 7.3 | 131\% | 137\% |
| 79 | 6 | 105 | 0.057143 | 6.6593\% | 6.4503\% | 7.0 | 6.8 | 86\% | 89\% |
| 80 | 9 | 113 | 0.079646 | 7.1754\% | 7.0656\% | 8.1 | 8.0 | 111\% | 113\% |
| 81 | 4 | 79 | 0.050633 | 8.0024\% | 7.6779\% | 6.3 | 6.1 | 63\% | 66\% |
| 82 | 7 | 95 | 0.073684 | 8.9701\% | 8.2878\% | 8.5 | 7.9 | 82\% | 89\% |
| 83 | 6 | 71 | 0.084507 | 9.8973\% | 9.1341\% | 7.0 | 6.5 | 85\% | 93\% |
| 84 | 5 | 69 | 0.072464 | 10.6514\% | 9.9780\% | 7.3 | 6.9 | 68\% | 73\% |
| 85 | 9 | 58 | 0.155172 | 11.8109\% | 10.8194\% | 6.9 | 6.3 | 131\% | 143\% |
| 86 | 4 | 40 | 0.100000 | 13.5976\% | 11.6572\% | 5.4 | 4.7 | 74\% | 86\% |
| 87 | 4 | 37 | 0.108108 | 14.8903\% | 12.4912\% | 5.5 | 4.6 | 73\% | 87\% |
| 88 | 4 | 22 | 0.181818 | 16.4824\% | 13.5940\% | 3.6 | 3.0 | 110\% | 134\% |
| 89 | 5 | 21 | 0.238095 | 18.2395\% | 14.6881\% | 3.8 | 3.1 | 131\% | 162\% |
| 90 | 1 | 7 | 0.142857 | 20.1100\% | 15.7723\% | 1.4 | 1.1 | 71\% | 91\% |
| 91 | 3 | 10 | 0.300000 | 21.8931\% | 16.8458\% | 2.2 | 1.7 | 137\% | 178\% |
| 92 | 0 | 4 | 0.000000 | 23.3411\% | 17.9039\% | 0.9 | 0.7 | 0\% | 0\% |
| 93 | 0 | 2 | 0.000000 | 25.7503\% | 19.2517\% | 0.5 | 0.4 | 0\% | 0\% |
| 94 | 1 | 4 | 0.250000 | 27.7062\% | 20.5947\% | 1.1 | 0.8 | 90\% | 121\% |
| 95 | 0 | 2 | 0.000000 | 29.0978\% | 21.9385\% | 0.6 | 0.4 | 0\% | 0\% |
| 96 | 0 | 1 | 0.000000 | 31.5801\% | 23.2924\% | 0.3 | 0.2 | 0\% | 0\% |
| 97 | 0 | 1 | 0.000000 | 33.2567\% | 24.6395\% | 0.3 | 0.2 | 0\% | 0\% |
| 98 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 264 | 13,217 |  |  |  | 278.4 | 265.9 | 95\% | 99\% |
| 100 or more | 0 | 0 | N/A | 0.0000\% | 0.0000\% | 0 | 0 | 0\% | 0\% |
| Total | 264 | 13,217 |  |  |  | 278.4 | 265.9 | 95\% | 99\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - HP TP MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN

|  | TABLE 2A GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Current <br> (7) / (3) | Proposed (8) / (3) | Current | Proposed | Current $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 336 | 0.000000 | 0.2193\% | 0.2117\% | 0.7 | 0.7 | 0\% | 0\% |
| 45-49 | 4 | 817 | 0.004896 | 0.2876\% | 0.4594\% | 2.3 | 3.8 | 170\% | 107\% |
| 50-54 | 5 | 1,006 | 0.004970 | 0.5135\% | 0.5772\% | 5.2 | 5.8 | 97\% | 86\% |
| 55-59 | 9 | 1,422 | 0.006329 | 0.7517\% | 0.7087\% | 10.7 | 10.1 | 84\% | 89\% |
| 60-64 | 33 | 2,837 | 0.011632 | 1.1833\% | 1.0666\% | 33.6 | 30.3 | 98\% | 109\% |
| 65-69 | 61 | 3,250 | 0.018769 | 1.8659\% | 1.7943\% | 60.6 | 58.3 | 101\% | 105\% |
| 70-74 | 51 | 1,746 | 0.029210 | 3.1343\% | 3.0680\% | 54.7 | 53.6 | 93\% | 95\% |
| 75-79 | 38 | 730 | 0.052055 | 5.3203\% | 5.1781\% | 38.8 | 37.8 | 98\% | 101\% |
| 80-84 | 31 | 426 | 0.072770 | 8.7508\% | 8.2682\% | 37.3 | 35.2 | 83\% | 88\% |
| 85-89 | 26 | 178 | 0.146067 | 14.1883\% | 12.1545\% | 25.3 | 21.6 | 103\% | 120\% |
| 90-94 | 5 | 27 | 0.185185 | 22.7923\% | 17.4578\% | 6.2 | 4.7 | 81\% | 106\% |
| 95-99 | 0 | 4 | 0.000000 | 30.7581\% | 22.9522\% | 1.2 | 0.9 | 0\% | 0\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 263 | 12,779 |  |  |  | 276.6 | 262.8 | 95\% | 100\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - HP TP MORTALITY EXPERIENCE OF DISABILITY RETIREES WOMEN

|  | TABLE 2B GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate | Current <br> (7) / (3) | Proposed $(8) /(3)$ | Current | Proposed | Current <br> (2) / (7) | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 71 | 0.000000 | 0.1084\% | 0.2132\% | 0.1 | 0.2 | 0\% | 0\% |
| 45-49 | 1 | 146 | 0.006849 | 0.1842\% | 0.4571\% | 0.3 | 0.7 | 372\% | 150\% |
| 50-54 | 0 | 109 | 0.000000 | 0.3168\% | 0.5716\% | 0.3 | 0.6 | 0\% | 0\% |
| 55-59 | 0 | 37 | 0.000000 | 0.4661\% | 0.6826\% | 0.2 | 0.3 | 0\% | 0\% |
| 60-64 | 0 | 35 | 0.000000 | 0.7388\% | 1.0474\% | 0.3 | 0.4 | 0\% | 0\% |
| 65-69 | 0 | 27 | 0.000000 | 1.1572\% | 1.7368\% | 0.3 | 0.5 | 0\% | 0\% |
| 70-74 | 0 | 7 | 0.000000 | 1.9766\% | 3.0365\% | 0.1 | 0.2 | 0\% | 0\% |
| 75-79 | 0 | 5 | 0.000000 | 3.4242\% | 5.2069\% | 0.2 | 0.3 | 0\% | 0\% |
| 80-84 | 0 | 1 | 0.000000 | 5.0008\% | 7.0656\% | 0.1 | 0.1 | 0\% | 0\% |
| 85-89 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 90-94 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 95-99 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 1 | 438 |  |  |  | 1.8 | 3.1 | 56\% | 33\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - HP TP MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN AND WOMEN

| Age | TABLE 2C GROUPED |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Deaths | Total <br> Exposed | Actual Rate | Current $(7) /(3)$ | Proposed (8) / (3) | Current | Proposed | Current $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 407 | 0.000000 | 0.1999\% | 0.2119\% | 0.8 | 0.9 | 0\% | 0\% |
| 45-49 | 5 | 963 | 0.005192 | 0.2719\% | 0.4590\% | 2.6 | 4.4 | 191\% | 113\% |
| 50-54 | 5 | 1,115 | 0.004484 | 0.4943\% | 0.5767\% | 5.5 | 6.4 | 91\% | 78\% |
| 55-59 | 9 | 1,459 | 0.006169 | 0.7445\% | 0.7081\% | 10.9 | 10.3 | 83\% | 87\% |
| 60-64 | 33 | 2,872 | 0.011490 | 1.1779\% | 1.0663\% | 33.8 | 30.6 | 98\% | 108\% |
| 65-69 | 61 | 3,277 | 0.018615 | 1.8600\% | 1.7938\% | 61.0 | 58.8 | 100\% | 104\% |
| 70-74 | 51 | 1,753 | 0.029093 | 3.1297\% | 3.0678\% | 54.9 | 53.8 | 93\% | 95\% |
| 75-79 | 38 | 735 | 0.051701 | 5.3074\% | 5.1783\% | 39.0 | 38.1 | 97\% | 100\% |
| 80-84 | 31 | 427 | 0.072600 | 8.7420\% | 8.2654\% | 37.3 | 35.3 | 83\% | 88\% |
| 85-89 | 26 | 178 | 0.146067 | 14.1883\% | 12.1545\% | 25.3 | 21.6 | 103\% | 120\% |
| 90-94 | 5 | 27 | 0.185185 | 22.7923\% | 17.4578\% | 6.2 | 4.7 | 81\% | 106\% |
| 95-99 | 0 | 4 | 0.000000 | 30.7581\% | 22.9522\% | 1.2 | 0.9 | 0\% | 0\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 264 | 13,217 |  |  |  | 278.4 | 265.9 | 95\% | 99\% |

## NEW YORK CITY EMPLOYEES' RETIREMENT SYSTEM - HP TP MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN AND WOMEN

| Plan <br> Year <br> Ending <br> June 30, | TABLE 2D <br> Life Years Exposed | Actual <br> Deaths | Expected Deaths | 10-YEAR PERIOD ENDING 6/30/2013$\qquad$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / Expected | Actual $(3) /(2)$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 1,466 | 25 | 18.0 | 139\% | 1.7053\% | 1.2298\% |
| 2005 | 1,441 | 30 | 19.3 | 156\% | 2.0819\% | 1.3378\% |
| 2006 | 1,411 | 25 | 20.0 | 125\% | 1.7718\% | 1.4206\% |
| 2007 | 1,385 | 22 | 21.3 | 104\% | 1.5884\% | 1.5344\% |
| 2008 | 1,360 | 23 | 22.7 | 101\% | 1.6912\% | 1.6665\% |
| 2009 | 1,337 | 27 | 24.0 | 112\% | 2.0194\% | 1.7964\% |
| 2010 | 1,310 | 32 | 25.3 | 126\% | 2.4427\% | 1.9330\% |
| 2011 | 1,245 | 33 | 25.4 | 130\% | 2.6506\% | 2.0439\% |
| 2012 | 1,212 | 26 | 23.8 | 109\% | 2.1452\% | 1.9649\% |
| 2013 | 1,183 | 21 | 28.3 | 74\% | 1.7751\% | 2.3907\% |
| Total | 13,350 | 264 | 228.1 | 116\% | 1.9775\% | 1.7090\% |

[^15]| $\begin{gathered} \text { Table } \\ \text { Number } \\ \hline \end{gathered}$ | Table Type | TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK EXPERIENCE STUDY RESULTS OVERVIEW |  |  |  |  | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 4-YEAR PERIOD ENDING 6/30/2013* |  | 10-YEAR PERIOD ENDING 6/30/2013* |  |  |  |
|  |  |  | Average Number of Decrements per Year | Ratio of Actual to |  | Average Number of Decrements per Year |  |
|  |  | Expected |  | Expected | Proposed |  |  |
|  | Service Retiree Mortality |  |  |  |  |  | The proposed assumption is a based on actual plan experience. |
| 1A | Men | 82\% | 532 | 84\% | 98\% | 503 | Future mortality improvements will be projected using scale MP- |
| 1B | Women | 93\% | 1044 | 99\% | 101\% | 1037 | 2014. |
| 1 C | By Year |  |  |  |  |  |  |
|  | Disabled Retiree Mortality |  |  |  |  |  | The proposed assumption is a based on actual plan experience. |
| 2 A | Men | 76\% | 20 | 91\% | 92\% | 25 | Future mortality improvements will be projected using scale MP- |
| 2B | Women | 106\% | 68 | 105\% | 96\% | 68 | 2014. |
| 2 C | By Year |  |  |  |  |  |  |
| 3A | Active Member Withdrawals | 119\% | 4223 | 126\% | 112\% | 4537 | Actual withdrawal experience appears to be higher than expected. |
| 3B | By Year |  |  |  |  |  | The proposed assumption is based on actual experience. |
|  | Active Member Service Retirements |  |  |  |  |  | Generally, members have been delaying retirements, consistent |
|  | In 1st Year of Eligibility |  |  |  |  |  | with national trends. Consider extending maximum retirement age |
|  | Total |  |  |  |  |  | from 70 to 75. |
| 4A | Men | 67\% | 127 | 100\% | 86\% | 167 |  |
| 4B | Women | 60\% | 398 | 80\% | 68\% | 451 |  |
|  | Elected |  |  |  |  |  |  |
| 4 C | Men | 92\% | 62 | 70\% | 66\% | 26 |  |
| 4D | Women | 84\% | 218 | 63\% | 65\% | 88 |  |
|  | Mandated |  |  |  |  |  |  |
| 4 E | Men | 54\% | 65 | 109\% | 91\% | 141 |  |
| 4F | Women | 44\% | 180 | 86\% | 69\% | 363 |  |
|  | In 2nd Year of Eligibility |  |  |  |  |  |  |
|  | Total |  |  |  |  |  |  |
| 5A | Men | 134\% | 132 | 149\% | 84\% | 127 |  |
| 5B | Women | 118\% | 386 | 134\% | 74\% | 361 |  |
|  | Elected |  |  |  |  |  |  |
| 5 C | Men | 124\% | 41 | 101\% | 96\% | 17 |  |
| 5D | Women | 114\% | 145 | 92\% | 88\% | 59 |  |
|  | Mandated |  |  |  |  |  |  |
| 5E | Men | 139\% | 92 | 161\% | 83\% | 110 |  |
| 5F | Women | 120\% | 241 | 147\% | 71\% | 302 |  |


| $\begin{gathered} \text { Table } \\ \text { Number } \\ \hline \end{gathered}$ | Table Type | TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK EXPERIENCE STUDY RESULTS OVERVIEW |  |  |  |  | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 4-YEAR PERIOD ENDING 6/30/2013* |  | 10-YEAR PERIOD ENDING 6/30/2013* |  |  |  |
|  |  |  |  | Ratio | tual to | Average Number |  |
|  |  | Expected | Decrements per Year | Expected | Proposed | per Year |  |
| After 2nd Year of Eligibility |  |  |  |  |  |  |  |
| Total |  |  |  |  |  |  |  |
| 6A | Men | 64\% | 358 | 83\% | 76\% | 402 |  |
| 6B | Women | 76\% | 1270 | 83\% | 76\% | 1164 |  |
|  | Elected |  |  |  |  |  |  |
| 6 C | Men | 91\% | 59 | 84\% | 81\% | 24 |  |
| 6D | Women | 98\% | 246 | 90\% | 87\% | 100 |  |
|  | Mandated |  |  |  |  |  |  |
| 6 E | Men | 60\% | 299 | 83\% | 76\% | 378 |  |
| 6 F | Women | 72\% | 1024 | 83\% | 75\% | 1064 |  |
| 6G | By Year |  |  |  |  |  |  |
|  | Reduced Service Retirements |  |  |  |  |  | Last 4 years has higher credibility based on maturation process. |
|  | Total |  |  |  |  |  | Recent experience resembles current assumption and is trending |
| 7A | Men | 164\% | 122 | 205\% | 170\% | 136 | downward. The proposed assumption is $120 \%$ for males and $110 \%$ |
| 7B | Women | 133\% | 388 | 164\% | 149\% | 424 | for females of the current assumption. |
| 7 C | By Year |  |  |  |  |  |  |
|  | Active Member Ordinary Mortality |  |  |  |  |  | Recent experience is consistent with current assumption. There |
| 8 A | Men | 93\% | 31 | 109\% | 109\% | 36 | may be data issues in earlier years. |
| 8B | Women | 103\% | 59 | 136\% | 136\% | 74 |  |
| 8 C | By Year |  |  |  |  |  |  |
|  | Active Member Ordinary Disability |  |  |  |  |  | Actual experience appears higher than current assumption. The |
| 9 A | Men | 195\% | 29 | 207\% | 119\% | 30 | proposed assumption is $175 \%$ for males and $155 \%$ for females of |
| 9B | Women | 145\% | 93 | 172\% | 111\% | 107 | the current assumption. |
| 9 C | By Year |  |  |  |  |  |  |
|  | Active Member Accidental Disability |  |  |  |  |  | Actual experience appears higher than current assumption. The |
| 10A | Men | 135\% | 8 | 163\% | 121\% | 9 | proposed assumption is $135 \%$ of the current assumption for males |
| 10B | Women | 177\% | 30 | 181\% | 137\% | 30 | and rates exponentially-fitted to actual data for females. |
| 10C | By Year |  |  |  |  |  |  |
|  | Salary Increases** | Expected | Actual | Expected | Proposed | Actual | Merit component appears appropriate based on experience. |
| 11A | Total | 6.56\% | 2.94\% | 6.72\% | 6.72\% | 4.94\% | Productivity component has been significantly lower than expected, |
| 11B | Merit Only | 3.56\% | 2.40\% | 3.72\% | 3.72\% | 0.41\% | but will need to be examined in comparison to new contracts which |
|  | General Increase over Inflation | 0.50\% | -1.18\% | 0.50\% | 0.50\% | 2.54\% | include retrospective increases. |
| 11C | By Year |  |  |  |  |  |  |
|  | * Four-year and eight-year periods ending 6/30/2011 were studied for the Withdrawal and Disability Decrements. |  |  |  |  |  |  |
|  | For Salary Increases, average ann | ncrease in sa | hown. |  |  |  |  |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## WITHDRAWAL ASSUMPTIONS AND EXPERIENCE

FOR THE EIGHT-YEAR PERIOD ENDING 6/30/2011


## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

RETIREMENT ASSUMPTIONS AND EXPERIENCE
FOR THE FOUR-YEAR PERIOD ENDING 6/30/2013


## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

RETIREMENT ASSUMPTIONS AND EXPERIENCE
FOR THE FOUR-YEAR PERIOD ENDING 6/30/2013



## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

 RETIREMENT ASSUMPTIONS AND EXPERIENCE FOR THE FOUR-YEAR PERIOD ENDING 6/30/2013


## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

RETIREMENT ASSUMPTIONS AND EXPERIENCE
FOR THE FOUR-YEAR PERIOD ENDING 6/30/2013



## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

ORDINARY DISABILITY ASSUMPTIONS AND EXPERIENCE
FOR THE EIGHT-YEAR PERIOD ENDING 6/30/2011

—Current ——Actual ---Proposed


## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

 ACCIDENTAL DISABILITY ASSUMPTIONS AND EXPERIENCE FOR THE EIGHT-YEAR PERIOD ENDING 6/30/2011
—Current - Actual ---Proposed


## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

|  | TABLE 1A |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013Expected DeathsActual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate $(\mathbf{2}) /(\mathbf{3})$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 0 | N/A | 0.1100\% | 0.0847\% | 0 | 0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.1228\% | 0.0924\% | 0 | 0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.1358\% | 0.1007\% | 0 | 0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.1488\% | 0.1096\% | 0 | 0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.1617\% | 0.1191\% | 0 | 0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.1748\% | 0.1291\% | 0 | 0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.1878\% | 0.1397\% | 0 | 0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.2011\% | 0.1509\% | 0 | 0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.2143\% | 0.1626\% | 0 | 0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.2298\% | 0.1753\% | 0 | 0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.2564\% | 0.1892\% | 0 | 0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.2830\% | 0.2050\% | 0 | 0 | 0\% | 0\% |
| 53 | 0 | 1 | 0.000000 | 0.3121\% | 0.2229\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 0 | 2 | 0.000000 | 0.3419\% | 0.2434\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 0 | 34 | 0.000000 | 0.3751\% | 0.2671\% | 0.1 | 0.1 | 0\% | 0\% |
| 56 | 1 | 289 | 0.003460 | 0.4195\% | 0.2942\% | 1.2 | 0.9 | 82\% | 118\% |
| 57 | 3 | 498 | 0.006024 | 0.4651\% | 0.3252\% | 2.3 | 1.6 | 130\% | 185\% |
| 58 | 1 | 711 | 0.001406 | 0.5123\% | 0.3606\% | 3.6 | 2.6 | 27\% | 39\% |
| 59 | 4 | 1,069 | 0.003742 | 0.5566\% | 0.4008\% | 6.0 | 4.3 | 67\% | 93\% |
| 60 | 13 | 1,574 | 0.008259 | 0.6012\% | 0.4462\% | 9.5 | 7.0 | 137\% | 185\% |
| 61 | 12 | 2,356 | 0.005093 | 0.6976\% | 0.4973\% | 16.4 | 11.7 | 73\% | 102\% |
| 62 | 26 | 3,473 | 0.007486 | 0.7905\% | 0.5543\% | 27.5 | 19.2 | 95\% | 135\% |
| 63 | 32 | 4,594 | 0.006966 | 0.8923\% | 0.6177\% | 41.0 | 28.4 | 78\% | 113\% |
| 64 | 29 | 5,248 | 0.005526 | 0.9890\% | 0.6884\% | 51.9 | 36.1 | 56\% | 80\% |
| 65 | 37 | 5,294 | 0.006989 | 1.0687\% | 0.7672\% | 56.6 | 40.6 | 65\% | 91\% |
| 66 | 40 | 4,873 | 0.008208 | 1.2300\% | 0.8551\% | 59.9 | 41.7 | 67\% | 96\% |
| 67 | 40 | 4,415 | 0.009060 | 1.3800\% | 0.9529\% | 60.9 | 42.1 | 66\% | 95\% |
| 68 | 40 | 3,950 | 0.010127 | 1.5145\% | 1.0620\% | 59.8 | 42.0 | 67\% | 95\% |
| 69 | 39 | 3,585 | 0.010879 | 1.6575\% | 1.1836\% | 59.4 | 42.4 | 66\% | 92\% |
| 70 | 35 | 3,227 | 0.010846 | 1.7831\% | 1.3191\% | 57.5 | 42.6 | 61\% | 82\% |
| 71 | 49 | 2,929 | 0.016729 | 1.9651\% | 1.4701\% | 57.6 | 43.1 | 85\% | 114\% |
| 72 | 28 | 2,796 | 0.010014 | 2.1436\% | 1.6384\% | 59.9 | 45.8 | 47\% | 61\% |
| 73 | 38 | 2,643 | 0.014378 | 2.3183\% | 1.8260\% | 61.3 | 48.3 | 62\% | 79\% |
| 74 | 48 | 2,552 | 0.018809 | 2.4894\% | 2.0350\% | 63.5 | 51.9 | 76\% | 92\% |
| 75 | 56 | 2,404 | 0.023295 | 2.6785\% | 2.2680\% | 64.4 | 54.5 | 87\% | 103\% |
| 76 | 62 | 2,263 | 0.027397 | 2.9856\% | 2.5276\% | 67.6 | 57.2 | 92\% | 108\% |
| 77 | 66 | 2,233 | 0.029557 | 3.3129\% | 2.8169\% | 74.0 | 62.9 | 89\% | 105\% |
| 78 | 52 | 2,088 | 0.024904 | 3.6389\% | 3.1394\% | 76.0 | 65.6 | 68\% | 79\% |
| 79 | 69 | 2,051 | 0.033642 | 3.9634\% | 3.4988\% | 81.3 | 71.8 | 85\% | 96\% |
| 80 | 79 | 1,986 | 0.039778 | 4.3294\% | 3.8993\% | 86.0 | 77.4 | 92\% | 102\% |
| 81 | 89 | 1,892 | 0.047040 | 4.9783\% | 4.3457\% | 94.2 | 82.2 | 94\% | 108\% |
| 82 | 81 | 1,782 | 0.045455 | 5.6375\% | 4.8432\% | 100.5 | 86.3 | 81\% | 94\% |
| 83 | 95 | 1,700 | 0.055882 | 6.2564\% | 5.3976\% | 106.4 | 91.8 | 89\% | 104\% |
| 84 | 101 | 1,569 | 0.064372 | 6.9309\% | 6.0155\% | 108.7 | 94.4 | 93\% | 107\% |
| 85 | 84 | 1,351 | 0.062176 | 7.5548\% | 6.7041\% | 102.1 | 90.6 | 82\% | 93\% |
| 86 | 97 | 1,194 | 0.081240 | 8.5682\% | 7.4716\% | 102.3 | 89.2 | 95\% | 109\% |
| 87 | 74 | 1,051 | 0.070409 | 9.6778\% | 8.3269\% | 101.7 | 87.5 | 73\% | 85\% |
| 88 | 80 | 892 | 0.089686 | 10.8235\% | 9.2801\% | 96.5 | 82.8 | 83\% | 97\% |
| 89 | 75 | 762 | 0.098425 | 11.9100\% | 10.3425\% | 90.8 | 78.8 | 83\% | 95\% |
| 90 | 71 | 607 | 0.116969 | 13.1204\% | 11.5264\% | 79.6 | 70.0 | 89\% | 101\% |
| 91 | 72 | 455 | 0.158242 | 15.0714\% | 12.8459\% | 68.6 | 58.4 | 105\% | 123\% |
| 92 | 50 | 337 | 0.148368 | 17.2089\% | 14.3165\% | 58.0 | 48.2 | 86\% | 104\% |
| 93 | 50 | 268 | 0.186567 | 19.2555\% | 15.9554\% | 51.6 | 42.8 | 97\% | 117\% |
| 94 | 40 | 218 | 0.183486 | 21.3577\% | 17.7819\% | 46.6 | 38.8 | 86\% | 103\% |
| 95 | 38 | 169 | 0.224852 | 23.7314\% | 19.8175\% | 40.1 | 33.5 | 95\% | 113\% |
| 96 | 30 | 122 | 0.245902 | 25.8804\% | 22.0861\% | 31.6 | 26.9 | 95\% | 111\% |
| 97 | 30 | 94 | 0.319149 | 27.9670\% | 24.6145\% | 26.3 | 23.1 | 114\% | 130\% |
| 98 | 18 | 69 | 0.260870 | 30.3680\% | 27.4322\% | 21.0 | 18.9 | 86\% | 95\% |
| 99 | 17 | 61 | 0.278689 | 32.3578\% | 30.5726\% | 19.7 | 18.6 | 86\% | 91\% |
| Subtotal | 2,091 | 83,731 |  |  |  | 2,551.4 | 2,104.6 | 82\% | 99\% |
| 100 or more | 37 | 116 | 0.318966 | 37.1685\% | 42.3198\% | 43.1 | 49.1 | 86\% | 75\% |
| Total | 2,128 | 83,847 |  |  |  | 2,594.5 | 2,153.6 | 82\% | 99\% |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK MORTALITY EXPERIENCE OF SERVICE RETIREES WOMEN

|  | TABLE 1A |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 0 | N/A | 0.0739\% | 0.0699\% | 0 | 0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.0801\% | 0.0750\% | 0 | 0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.0873\% | 0.0801\% | 0 | 0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.0953\% | 0.0852\% | 0 | 0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.1038\% | 0.0903\% | 0 | 0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.1133\% | 0.0953\% | 0 | 0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.1237\% | 0.1002\% | 0 | 0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.1356\% | 0.1050\% | 0 | 0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.1478\% | 0.1096\% | 0 | 0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.1615\% | 0.1152\% | 0 | 0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.1759\% | 0.1221\% | 0 | 0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.1925\% | 0.1306\% | 0 | 0 | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.2106\% | 0.1408\% | 0 | 0 | 0\% | 0\% |
| 54 | 0 | 10 | 0.000000 | 0.2277\% | 0.1532\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 0 | 120 | 0.000000 | 0.2416\% | 0.1679\% | 0.3 | 0.2 | 0\% | 0\% |
| 56 | 4 | 819 | 0.004884 | 0.2595\% | 0.1852\% | 2.1 | 1.5 | 188\% | 264\% |
| 57 | 5 | 1,371 | 0.003647 | 0.2806\% | 0.2054\% | 3.8 | 2.8 | 130\% | 178\% |
| 58 | 11 | 2,058 | 0.005345 | 0.3120\% | 0.2288\% | 6.4 | 4.7 | 171\% | 234\% |
| 59 | 8 | 2,978 | 0.002686 | 0.3536\% | 0.2556\% | 10.5 | 7.6 | 76\% | 105\% |
| 60 | 13 | 4,238 | 0.003067 | 0.3973\% | 0.2861\% | 16.8 | 12.1 | 77\% | 107\% |
| 61 | 26 | 5,772 | 0.004505 | 0.4434\% | 0.3205\% | 25.6 | 18.5 | 102\% | 141\% |
| 62 | 27 | 7,206 | 0.003747 | 0.4817\% | 0.3592\% | 34.7 | 25.9 | 78\% | 104\% |
| 63 | 35 | 8,507 | 0.004114 | 0.5203\% | 0.4025\% | 44.3 | 34.2 | 79\% | 102\% |
| 64 | 42 | 8,840 | 0.004751 | 0.5846\% | 0.4510\% | 51.7 | 39.9 | 81\% | 105\% |
| 65 | 39 | 8,689 | 0.004488 | 0.6320\% | 0.5054\% | 54.9 | 43.9 | 71\% | 89\% |
| 66 | 52 | 8,427 | 0.006171 | 0.7073\% | 0.5663\% | 59.6 | 47.7 | 87\% | 109\% |
| 67 | 46 | 8,391 | 0.005482 | 0.7855\% | 0.6345\% | 65.9 | 53.2 | 70\% | 86\% |
| 68 | 53 | 8,213 | 0.006453 | 0.8923\% | 0.7110\% | 73.3 | 58.4 | 72\% | 91\% |
| 69 | 68 | 7,893 | 0.008615 | 0.9511\% | 0.7967\% | 75.1 | 62.9 | 91\% | 108\% |
| 70 | 71 | 7,243 | 0.009803 | 1.0378\% | 0.8928\% | 75.2 | 64.7 | 94\% | 110\% |
| 71 | 58 | 6,631 | 0.008747 | 1.1509\% | 1.0004\% | 76.3 | 66.3 | 76\% | 87\% |
| 72 | 58 | 6,173 | 0.009396 | 1.2734\% | 1.1210\% | 78.6 | 69.2 | 74\% | 84\% |
| 73 | 73 | 5,844 | 0.012491 | 1.3838\% | 1.2561\% | 80.9 | 73.4 | 90\% | 99\% |
| 74 | 77 | 5,467 | 0.014085 | 1.5014\% | 1.4075\% | 82.1 | 76.9 | 94\% | 100\% |
| 75 | 71 | 5,155 | 0.013773 | 1.6013\% | 1.5772\% | 82.5 | 81.3 | 86\% | 87\% |
| 76 | 88 | 5,045 | 0.017443 | 1.8332\% | 1.7673\% | 92.5 | 89.2 | 95\% | 99\% |
| 77 | 81 | 4,840 | 0.016736 | 2.0819\% | 1.9803\% | 100.8 | 95.8 | 80\% | 85\% |
| 78 | 99 | 4,764 | 0.020781 | 2.3142\% | 2.2190\% | 110.2 | 105.7 | 90\% | 94\% |
| 79 | 137 | 4,609 | 0.029724 | 2.5428\% | 2.4865\% | 117.2 | 114.6 | 117\% | 120\% |
| 80 | 117 | 4,418 | 0.026483 | 2.7660\% | 2.7862\% | 122.2 | 123.1 | 96\% | 95\% |
| 81 | 129 | 4,262 | 0.030267 | 3.2929\% | 3.1221\% | 140.3 | 133.1 | 92\% | 97\% |
| 82 | 133 | 4,168 | 0.031910 | 3.7608\% | 3.4984\% | 156.8 | 145.8 | 85\% | 91\% |
| 83 | 150 | 3,957 | 0.037908 | 4.1624\% | 3.9201\% | 164.7 | 155.1 | 91\% | 97\% |
| 84 | 157 | 3,691 | 0.042536 | 4.8495\% | 4.3926\% | 179.0 | 162.1 | 88\% | 97\% |
| 85 | 157 | 3,386 | 0.046367 | 5.4918\% | 4.9221\% | 186.0 | 166.7 | 84\% | 94\% |
| 86 | 180 | 3,093 | 0.058196 | 6.0156\% | 5.5154\% | 186.1 | 170.6 | 97\% | 106\% |
| 87 | 180 | 2,799 | 0.064309 | 6.6643\% | 6.1802\% | 186.5 | 173.0 | 96\% | 104\% |
| 88 | 179 | 2,480 | 0.072177 | 7.2643\% | 6.9252\% | 180.2 | 171.7 | 99\% | 104\% |
| 89 | 153 | 2,115 | 0.072340 | 8.1319\% | 7.7599\% | 172.0 | 164.1 | 89\% | 93\% |
| 90 | 160 | 1,795 | 0.089136 | 9.3060\% | 8.6953\% | 167.0 | 156.1 | 96\% | 103\% |
| 91 | 154 | 1,526 | 0.100917 | 10.5446\% | 9.7435\% | 160.9 | 148.7 | 96\% | 104\% |
| 92 | 134 | 1,311 | 0.102212 | 11.6032\% | 10.9179\% | 152.1 | 143.1 | 88\% | 94\% |
| 93 | 158 | 1,114 | 0.141831 | 12.7827\% | 12.2340\% | 142.4 | 136.3 | 111\% | 116\% |
| 94 | 126 | 883 | 0.142695 | 14.6834\% | 13.7087\% | 129.7 | 121.0 | 97\% | 104\% |
| 95 | 128 | 717 | 0.178522 | 16.9861\% | 15.3611\% | 121.8 | 110.1 | 105\% | 116\% |
| 96 | 110 | 550 | 0.200000 | 19.0062\% | 17.2127\% | 104.5 | 94.7 | 105\% | 116\% |
| 97 | 82 | 413 | 0.198547 | 20.8085\% | 19.2875\% | 85.9 | 79.7 | 95\% | 103\% |
| 98 | 80 | 334 | 0.239521 | 23.0718\% | 21.6125\% | 77.1 | 72.2 | 104\% | 111\% |
| 99 | 73 | 271 | 0.269373 | 23.4718\% | 24.2176\% | 63.6 | 65.6 | 115\% | 111\% |
| Subtotal | 3,982 | 182,586 |  |  |  | 4,300.1 | 3,943.7 | 93\% | 101\% |
| 100 or more | 194 | 687 | 0.282387 | 25.4498\% | 34.0732\% | 174.8 | 234.1 | 111\% | 83\% |
| Total | 4,176 | 183,273 |  |  |  | 4,475.0 | 4,177.7 | 93\% | 100\% |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

|  | TABLE 1A GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 45-49 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 50-54 | 0 | 3 | 0.000000 | 0.3320\% | 0.2366\% | 0.0 | 0.0 | 0\% | 0\% |
| 55-59 | 9 | 2,601 | 0.003460 | 0.5094\% | 0.3617\% | 13.2 | 9.4 | 68\% | 96\% |
| 60-64 | 112 | 17,245 | 0.006495 | 0.8481\% | 0.5944\% | 146.2 | 102.5 | 77\% | 109\% |
| 65-69 | 196 | 22,117 | 0.008862 | 1.3414\% | 0.9438\% | 296.7 | 208.7 | 66\% | 94\% |
| 70-74 | 198 | 14,147 | 0.013996 | 2.1194\% | 1.6373\% | 299.8 | 231.6 | 66\% | 85\% |
| 75-79 | 305 | 11,039 | 0.027629 | 3.2902\% | 2.8257\% | 363.2 | 311.9 | 84\% | 98\% |
| 80-84 | 445 | 8,929 | 0.049838 | 5.5520\% | 4.8394\% | 495.7 | 432.1 | 90\% | 103\% |
| 85-89 | 410 | 5,250 | 0.078095 | 9.3978\% | 8.1693\% | 493.4 | 428.9 | 83\% | 96\% |
| 90-94 | 283 | 1,885 | 0.150133 | 16.1472\% | 13.6969\% | 304.4 | 258.2 | 93\% | 110\% |
| 95-99 | 133 | 515 | 0.258252 | 26.9245\% | 23.5246\% | 138.7 | 121.2 | 96\% | 110\% |
| 100+ | 37 | 116 | 0.318966 | 37.1685\% | 42.3198\% | 43.1 | 49.1 | 86\% | 75\% |
| Total | 2,128 | 83,847 |  |  |  | 2,594.5 | 2,153.6 | 82\% | 99\% |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK MORTALITY EXPERIENCE OF SERVICE RETIREES WOMEN

|  | TABLE 1A GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected $(7) /(3)$ | Proposed (8) / (3) | Expected | Proposed | Expected $(\mathbf{2}) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 45-49 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 50-54 | 0 | 10 | 0.000000 | 0.2277\% | 0.1532\% | 0.0 | 0.0 | 0\% | 0\% |
| 55-59 | 28 | 7,346 | 0.003812 | 0.3160\% | 0.2294\% | 23.2 | 16.9 | 121\% | 166\% |
| 60-64 | 143 | 34,563 | 0.004137 | 0.5008\% | 0.3779\% | 173.1 | 130.6 | 83\% | 109\% |
| 65-69 | 258 | 41,613 | 0.006200 | 0.7901\% | 0.6396\% | 328.8 | 266.2 | 78\% | 97\% |
| 70-74 | 337 | 31,358 | 0.010747 | 1.2534\% | 1.1179\% | 393.0 | 350.6 | 86\% | 96\% |
| 75-79 | 476 | 24,413 | 0.019498 | 2.0614\% | 1.9933\% | 503.2 | 486.6 | 95\% | 98\% |
| 80-84 | 686 | 20,496 | 0.033470 | $3.7227 \%$ | 3.5091\% | 763.0 | 719.2 | 90\% | 95\% |
| 85-89 | 849 | 13,873 | 0.061198 | 6.5645\% | 6.0989\% | 910.7 | 846.1 | 93\% | 100\% |
| 90-94 | 732 | 6,629 | 0.110424 | 11.3460\% | 10.6386\% | 752.1 | 705.2 | 97\% | 104\% |
| 95-99 | 473 | 2,285 | 0.207002 | 19.8220\% | 18.4806\% | 452.9 | 422.3 | 104\% | 112\% |
| 100+ | 194 | 687 | 0.282387 | 25.4498\% | 34.0732\% | 174.8 | 234.1 | 111\% | 83\% |
| Total | 4,176 | 183,273 |  |  |  | 4,475.0 | 4,177.7 | 93\% | 100\% |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

|  | TABLE 1A |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 1 | 0.000000 | 0.1130\% | 0.0919\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 1 | 0.000000 | 0.1266\% | 0.1007\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 1 | 0.000000 | 0.1404\% | 0.1099\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.1543\% | 0.1195\% | 0 | 0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.1682\% | 0.1295\% | 0 | 0 | 0\% | 0\% |
| 46 | 0 | 1 | 0.000000 | 0.1823\% | 0.1399\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 1 | 0.000000 | 0.1965\% | 0.1506\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 1 | 0.000000 | 0.2111\% | 0.1616\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.2256\% | 0.1730\% | 0 | 0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.2427\% | 0.1851\% | 0 | 0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.2716\% | 0.1981\% | 0 | 0 | 0\% | 0\% |
| 52 | 0 | 1 | 0.000000 | 0.3006\% | 0.2127\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 16 | 0.000000 | 0.3316\% | 0.2292\% | 0.1 | 0.0 | 0\% | 0\% |
| 54 | 0 | 46 | 0.000000 | 0.3632\% | 0.2483\% | 0.2 | 0.1 | 0\% | 0\% |
| 55 | 2 | 246 | 0.008130 | 0.3973\% | 0.2708\% | 1.0 | 0.7 | 205\% | 300\% |
| 56 | 8 | 2,083 | 0.003841 | 0.4430\% | 0.2973\% | 9.2 | 6.2 | 87\% | 129\% |
| 57 | 16 | 3,817 | 0.004192 | 0.4897\% | 0.3284\% | 18.7 | 12.5 | 86\% | 128\% |
| 58 | 29 | 5,302 | 0.005470 | 0.5377\% | 0.3650\% | 28.5 | 19.4 | 102\% | 150\% |
| 59 | 37 | 6,539 | 0.005658 | 0.5842\% | 0.4076\% | 38.2 | 26.7 | 97\% | 139\% |
| 60 | 51 | 7,660 | 0.006658 | 0.6310\% | 0.4569\% | 48.3 | 35.0 | 106\% | 146\% |
| 61 | 54 | 8,608 | 0.006273 | 0.7300\% | 0.5132\% | 62.8 | 44.2 | 86\% | 122\% |
| 62 | 71 | 9,275 | 0.007655 | 0.8272\% | 0.5766\% | 76.7 | 53.5 | 93\% | 133\% |
| 63 | 71 | 9,931 | 0.007149 | 0.9309\% | 0.6475\% | 92.4 | 64.3 | 77\% | 110\% |
| 64 | 70 | 10,101 | 0.006930 | 1.0318\% | 0.7265\% | 104.2 | 73.4 | 67\% | 95\% |
| 65 | 79 | 9,885 | 0.007992 | 1.1148\% | 0.8143\% | 110.2 | 80.5 | 72\% | 98\% |
| 66 | 73 | 9,226 | 0.007912 | 1.2793\% | 0.9117\% | 118.0 | 84.1 | 62\% | 87\% |
| 67 | 78 | 8,486 | 0.009192 | 1.4352\% | 1.0202\% | 121.8 | 86.6 | 64\% | 90\% |
| 68 | 91 | 7,888 | 0.011537 | 1.5800\% | 1.1405\% | 124.6 | 90.0 | 73\% | 101\% |
| 69 | 76 | 7,384 | 0.010293 | 1.7291\% | 1.2745\% | 127.7 | 94.1 | 60\% | 81\% |
| 70 | 82 | 6,948 | 0.011802 | 1.8658\% | 1.4236\% | 129.6 | 98.9 | 63\% | 83\% |
| 71 | 99 | 6,605 | 0.014989 | 2.0563\% | 1.5897\% | 135.8 | 105.0 | 73\% | 94\% |
| 72 | 81 | 6,355 | 0.012746 | 2.2430\% | 1.7746\% | 142.5 | 112.8 | 57\% | 72\% |
| 73 | 93 | 6,161 | 0.015095 | 2.4259\% | 1.9804\% | 149.5 | 122.0 | 62\% | 76\% |
| 74 | 124 | 5,970 | 0.020771 | 2.6048\% | 2.2092\% | 155.5 | 131.9 | 80\% | 94\% |
| 75 | 140 | 5,801 | 0.024134 | 2.7942\% | 2.4631\% | 162.1 | 142.9 | 86\% | 98\% |
| 76 | 139 | 5,544 | 0.025072 | 3.1146\% | 2.7456\% | 172.7 | 152.2 | 80\% | 91\% |
| 77 | 152 | 5,387 | 0.028216 | 3.4456\% | 3.0589\% | 185.6 | 164.8 | 82\% | 92\% |
| 78 | 154 | 5,107 | 0.030155 | 3.7732\% | 3.4063\% | 192.7 | 174.0 | 80\% | 89\% |
| 79 | 174 | 4,893 | 0.035561 | 4.0972\% | 3.7924\% | 200.5 | 185.6 | 87\% | 94\% |
| 80 | 189 | 4,654 | 0.040610 | 4.4619\% | 4.2217\% | 207.7 | 196.5 | 91\% | 96\% |
| 81 | 185 | 4,348 | 0.042548 | 5.1152\% | 4.6987\% | 222.4 | 204.3 | 83\% | 91\% |
| 82 | 188 | 3,998 | 0.047024 | 5.7750\% | 5.2291\% | 230.9 | 209.1 | 81\% | 90\% |
| 83 | 205 | 3,660 | 0.056011 | 6.4090\% | 5.8194\% | 234.6 | 213.0 | 87\% | 96\% |
| 84 | 228 | 3,264 | 0.069853 | 7.0785\% | 6.4762\% | 231.0 | 211.4 | 99\% | 108\% |
| 85 | 196 | 2,822 | 0.069454 | 7.7157\% | 7.2073\% | 217.7 | 203.4 | 90\% | 96\% |
| 86 | 193 | 2,456 | 0.078583 | 8.7507\% | 8.0200\% | 214.9 | 197.0 | 90\% | 98\% |
| 87 | 191 | 2,074 | 0.092093 | 9.8541\% | 8.9234\% | 204.4 | 185.1 | 93\% | 103\% |
| 88 | 177 | 1,755 | 0.100855 | 10.9875\% | 9.9257\% | 192.8 | 174.2 | 92\% | 102\% |
| 89 | 165 | 1,507 | 0.109489 | 12.0905\% | 11.0371\% | 182.2 | 166.3 | 91\% | 99\% |
| 90 | 167 | 1,262 | 0.132330 | 13.2791\% | 12.2692\% | 167.6 | 154.8 | 100\% | 108\% |
| 91 | 154 | 1,002 | 0.153693 | 15.2537\% | 13.6347\% | 152.8 | 136.6 | 101\% | 113\% |
| 92 | 132 | 821 | 0.160780 | 17.3647\% | 15.1445\% | 142.6 | 124.3 | 93\% | 106\% |
| 93 | 120 | 674 | 0.178042 | 19.4298\% | 16.8096\% | 131.0 | 113.3 | 92\% | 106\% |
| 94 | 110 | 553 | 0.198915 | 21.5511\% | 18.6635\% | 119.2 | 103.2 | 92\% | 107\% |
| 95 | 110 | 445 | 0.247191 | 23.8743\% | 20.7325\% | 106.2 | 92.3 | 104\% | 119\% |
| 96 | 65 | 329 | 0.197568 | 26.0363\% | 23.0497\% | 85.7 | 75.8 | 76\% | 86\% |
| 97 | 78 | 257 | 0.303502 | 28.1355\% | 25.6259\% | 72.3 | 65.9 | 108\% | 118\% |
| 98 | 47 | 166 | 0.283133 | 30.4593\% | 28.4901\% | 50.6 | 47.3 | 93\% | 99\% |
| 99 | 33 | 116 | 0.284483 | 32.4551\% | 31.6777\% | 37.6 | 36.7 | 88\% | 90\% |
| Subtotal | 4,977 | 201,434 |  |  |  | 5,913.4 | 5,071.6 | 84\% | 98\% |
| 100 or more | 56 | 190 | 0.294737 | 37.1685\% | 43.7433\% | 70.6 | 83.1 | 79\% | 67\% |
| Total | 5,033 | 201,624 |  |  |  | 5,984.0 | 5,154.7 | 84\% | 98\% |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK MORTALITY EXPERIENCE OF SERVICE RETIREES WOMEN

|  | TABLE 1A |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 0 | N/A | 0.0773\% | 0.0751\% | 0 | 0 | 0\% | 0\% |
| 42 | 0 | 2 | 0.000000 | 0.0838\% | 0.0803\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 3 | 0.000000 | 0.0913\% | 0.0853\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.0997\% | 0.0901\% | 0 | 0 | 0\% | 0\% |
| 45 | 0 | 2 | 0.000000 | 0.1090\% | 0.0947\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 2 | 0.000000 | 0.1193\% | 0.0991\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 1 | 0.000000 | 0.1307\% | 0.1032\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 3 | 0.000000 | 0.1432\% | 0.1071\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 3 | 0.000000 | 0.1561\% | 0.1110\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 5 | 0.000000 | 0.1700\% | 0.1160\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 5 | 0.000000 | 0.1846\% | 0.1226\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 15 | 0.000000 | 0.2009\% | 0.1311\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 39 | 0.000000 | 0.2184\% | 0.1417\% | 0.1 | 0.1 | 0\% | 0\% |
| 54 | 0 | 113 | 0.000000 | 0.2347\% | 0.1549\% | 0.3 | 0.2 | 0\% | 0\% |
| 55 | 2 | 502 | 0.003984 | 0.2474\% | 0.1710\% | 1.2 | 0.9 | 161\% | 233\% |
| 56 | 24 | 3,928 | 0.006110 | 0.2643\% | 0.1902\% | 10.4 | 7.5 | 231\% | 321\% |
| 57 | 29 | 6,543 | 0.004432 | 0.2849\% | 0.2128\% | 18.6 | 13.9 | 156\% | 208\% |
| 58 | 31 | 8,669 | 0.003576 | 0.3167\% | 0.2392\% | 27.5 | 20.7 | 113\% | 149\% |
| 59 | 41 | 10,583 | 0.003874 | 0.3590\% | 0.2695\% | 38.0 | 28.5 | 108\% | 144\% |
| 60 | 53 | 12,618 | 0.004200 | 0.4033\% | 0.3038\% | 50.9 | 38.3 | 104\% | 138\% |
| 61 | 78 | 14,502 | 0.005379 | 0.4501\% | 0.3425\% | 65.3 | 49.7 | 119\% | 157\% |
| 62 | 76 | 15,698 | 0.004841 | 0.4890\% | 0.3855\% | 76.8 | 60.5 | 99\% | 126\% |
| 63 | 106 | 17,517 | 0.006051 | 0.5282\% | 0.4334\% | 92.5 | 75.9 | 115\% | 140\% |
| 64 | 108 | 18,091 | 0.005970 | 0.5934\% | 0.4865\% | 107.4 | 88.0 | 101\% | 123\% |
| 65 | 94 | 17,899 | 0.005252 | 0.6415\% | 0.5456\% | 114.8 | 97.7 | 82\% | 96\% |
| 66 | 113 | 17,299 | 0.006532 | 0.7180\% | 0.6115\% | 124.2 | 105.8 | 91\% | 107\% |
| 67 | 112 | 16,907 | 0.006624 | 0.7974\% | 0.6850\% | 134.8 | 115.8 | 83\% | 97\% |
| 68 | 112 | 16,434 | 0.006815 | 0.9058\% | 0.7670\% | 148.9 | 126.0 | 75\% | 89\% |
| 69 | 146 | 15,946 | 0.009156 | 0.9655\% | 0.8587\% | 154.0 | 136.9 | 95\% | 107\% |
| 70 | 149 | 15,104 | 0.009865 | 1.0535\% | 0.9612\% | 159.1 | 145.2 | 94\% | 103\% |
| 71 | 156 | 14,293 | 0.010914 | 1.1719\% | 1.0760\% | 167.5 | 153.8 | 93\% | 101\% |
| 72 | 171 | 13,726 | 0.012458 | 1.2966\% | 1.2044\% | 178.0 | 165.3 | 96\% | 103\% |
| 73 | 171 | 13,260 | 0.012896 | 1.4132\% | 1.3482\% | 187.4 | 178.8 | 91\% | 96\% |
| 74 | 189 | 12,824 | 0.014738 | 1.5334\% | 1.5088\% | 196.6 | 193.5 | 96\% | 98\% |
| 75 | 207 | 12,395 | 0.016700 | 1.6403\% | 1.6889\% | 203.3 | 209.3 | 102\% | 99\% |
| 76 | 225 | 12,206 | 0.018434 | 1.8779\% | 1.8910\% | 229.2 | 230.8 | 98\% | 97\% |
| 77 | 202 | 11,794 | 0.017127 | 2.1262\% | 2.1178\% | 250.8 | 249.8 | 81\% | 81\% |
| 78 | 247 | 11,471 | 0.021533 | 2.3635\% | 2.3724\% | 271.1 | 272.1 | 91\% | 91\% |
| 79 | 307 | 10,989 | 0.027937 | 2.5970\% | 2.6592\% | 285.4 | 292.2 | 108\% | 105\% |
| 80 | 286 | 10,533 | 0.027153 | 2.8249\% | 2.9809\% | 297.5 | 314.0 | 96\% | 91\% |
| 81 | 330 | 10,022 | 0.032928 | 3.3630\% | 3.3430\% | 337.0 | 335.0 | 98\% | 98\% |
| 82 | 321 | 9,411 | 0.034109 | 3.8409\% | 3.7490\% | 361.5 | 352.8 | 89\% | 91\% |
| 83 | 354 | 8,799 | 0.040232 | 4.2510\% | 4.2057\% | 374.0 | 370.1 | 95\% | 96\% |
| 84 | 363 | 8,120 | 0.044704 | 4.9528\% | 4.7170\% | 402.2 | 383.0 | 90\% | 95\% |
| 85 | 366 | 7,462 | 0.049049 | 5.5918\% | 5.2899\% | 417.3 | 394.7 | 88\% | 93\% |
| 86 | 403 | 6,703 | 0.060122 | 6.1067\% | 5.9299\% | 409.3 | 397.5 | 98\% | 101\% |
| 87 | 429 | 6,011 | 0.071369 | 6.7450\% | 6.6427\% | 405.4 | 399.3 | 106\% | 107\% |
| 88 | 409 | 5,326 | 0.076793 | 7.3522\% | 7.4373\% | 391.6 | 396.1 | 104\% | 103\% |
| 89 | 361 | 4,676 | 0.077203 | 8.2055\% | 8.3244\% | 383.7 | 389.2 | 94\% | 93\% |
| 90 | 382 | 4,026 | 0.094883 | 9.3902\% | 9.3126\% | 378.0 | 374.9 | 101\% | 102\% |
| 91 | 408 | 3,464 | 0.117783 | 10.6401\% | 10.4127\% | 368.6 | 360.7 | 111\% | 113\% |
| 92 | 364 | 2,982 | 0.122066 | 11.7082\% | 11.6357\% | 349.1 | 347.0 | 104\% | 105\% |
| 93 | 399 | 2,627 | 0.151884 | 12.8597\% | 12.9957\% | 337.8 | 341.4 | 118\% | 117\% |
| 94 | 322 | 2,235 | 0.144072 | 14.7719\% | 14.5118\% | 330.2 | 324.3 | 98\% | 99\% |
| 95 | 370 | 1,929 | 0.191809 | 17.0884\% | 16.2049\% | 329.6 | 312.6 | 112\% | 118\% |
| 96 | 317 | 1,571 | 0.201782 | 19.1207\% | 18.1084\% | 300.4 | 284.5 | 106\% | 111\% |
| 97 | 258 | 1,223 | 0.210957 | 20.8710\% | 20.2314\% | 255.3 | 247.4 | 101\% | 104\% |
| 98 | 218 | 927 | 0.235167 | 23.1412\% | 22.6081\% | 214.5 | 209.6 | 102\% | 104\% |
| 99 | 177 | 691 | 0.256151 | 23.5424\% | 25.2614\% | 162.7 | 174.6 | 109\% | 101\% |
| Subtotal | 9,986 | 420,129 |  |  |  | 10,099.8 | 9,766.1 | 99\% | 102\% |
| 100 or more | 381 | 1,273 | 0.299293 | 25.4498\% | 35.4410\% | 324.0 | 451.2 | 118\% | 84\% |
| Total | 10,367 | 421,402 |  |  |  | 10,423.8 | 10,217.2 | 99\% | 101\% |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

| Age | TABLE 1A GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected $(7) /(\mathbf{3})$ | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 3 | 0.000000 | 0.1267\% | 0.1008\% | 0.0 | 0.0 | 0\% | 0\% |
| 45-49 | 0 | 3 | 0.000000 | 0.1966\% | 0.1507\% | 0.0 | 0.0 | 0\% | 0\% |
| 50-54 | 0 | 63 | 0.000000 | 0.3542\% | 0.2428\% | 0.2 | 0.2 | 0\% | 0\% |
| 55-59 | 92 | 17,987 | 0.005115 | 0.5315\% | 0.3636\% | 95.6 | 65.4 | 96\% | 141\% |
| 60-64 | 317 | 45,575 | 0.006956 | 0.8438\% | 0.5932\% | 384.6 | 270.3 | 82\% | 117\% |
| 65-69 | 397 | 42,869 | 0.009261 | 1.4050\% | 1.0153\% | 602.3 | 435.2 | 66\% | 91\% |
| 70-74 | 479 | 32,039 | 0.014951 | 2.2253\% | 1.7809\% | 713.0 | 570.6 | 67\% | 84\% |
| 75-79 | 759 | 26,732 | 0.028393 | 3.4175\% | 3.0653\% | 913.6 | 819.4 | 83\% | 93\% |
| 80-84 | 995 | 19,924 | 0.049940 | 5.6543\% | 5.1908\% | 1,126.6 | 1,034.2 | 88\% | 96\% |
| 85-89 | 922 | 10,614 | 0.086866 | 9.5352\% | 8.7239\% | 1,012.1 | 926.0 | 91\% | 100\% |
| 90-94 | 683 | 4,312 | 0.158395 | 16.5381\% | 14.6637\% | 713.1 | 632.3 | 96\% | 108\% |
| 95-99 | 333 | 1,313 | 0.253618 | 26.8407\% | 24.2187\% | 352.4 | 318.0 | 94\% | 105\% |
| 100+ | 56 | 190 | 0.294737 | 37.1685\% | 43.7433\% | 70.6 | 83.1 | 79\% | 67\% |
| Total | 5,033 | 201,624 |  |  |  | 5,984.0 | 5,154.7 | 84\% | 98\% |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK MORTALITY EXPERIENCE OF SERVICE RETIREES WOMEN

|  | TABLE 1A GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 5 | 0.000000 | 0.0883\% | 0.0833\% | 0.0 | 0.0 | 0\% | 0\% |
| 45-49 | 0 | 11 | 0.000000 | 0.1350\% | 0.1041\% | 0.0 | 0.0 | 0\% | 0\% |
| 50-54 | 0 | 177 | 0.000000 | 0.2250\% | 0.1480\% | 0.4 | 0.3 | 0\% | 0\% |
| 55-59 | 127 | 30,225 | 0.004202 | 0.3167\% | 0.2366\% | 95.7 | 71.5 | 133\% | 178\% |
| 60-64 | 421 | 78,426 | 0.005368 | 0.5009\% | 0.3984\% | 392.8 | 312.4 | 107\% | 135\% |
| 65-69 | 577 | 84,485 | 0.006830 | 0.8009\% | 0.6892\% | 676.7 | 582.2 | 85\% | 99\% |
| 70-74 | 836 | 69,207 | 0.012080 | 1.2840\% | 1.2088\% | 888.6 | 836.5 | 94\% | 100\% |
| 75-79 | 1,188 | 58,855 | 0.020185 | 2.1065\% | 2.1312\% | 1,239.8 | 1,254.3 | 96\% | 95\% |
| 80-84 | 1,654 | 46,885 | 0.035278 | 3.7800\% | 3.7430\% | 1,772.3 | 1,754.9 | 93\% | 94\% |
| 85-89 | 1,968 | 30,178 | 0.065213 | 6.6515\% | 6.5507\% | 2,007.3 | 1,976.9 | 98\% | 100\% |
| 90-94 | 1,875 | 15,334 | 0.122277 | 11.5021\% | 11.4017\% | 1,763.7 | 1,748.3 | 106\% | 107\% |
| 95-99 | 1,340 | 6,341 | 0.211323 | 19.9096\% | 19.3761\% | 1,262.5 | 1,228.6 | 106\% | 109\% |
| 100+ | 381 | 1,273 | 0.299293 | 25.4498\% | 35.4410\% | 324.0 | 451.2 | 118\% | 84\% |
| Total | 10,367 | 421,402 |  |  |  | 10,423.8 | 10,217.2 | 99\% | 101\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK MORTALITY EXPERIENCE OF SERVICE RETIREES MEN AND WOMEN

| Plan <br> Year <br> Ending <br> June 30, | TABLE 1B <br> Life Years Exposed | Actual <br> Deaths | Expected Deaths | 10-YEAR PERIOD ENDING 6/30/2013 $\qquad$ <br> Mortality Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / <br> Expected | $\begin{aligned} & \hline \text { Actual } \\ & \text { (3) } /(2) \\ & \hline \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 52,681 | 1,539 | 1,274.6 | 121\% | 2.9214\% | 2.4195\% |
| 2005 | 57,127 | 1,547 | 1,318.0 | 117\% | 2.7080\% | 2.3071\% |
| 2006 | 59,397 | 1,457 | 1,361.9 | 107\% | 2.4530\% | 2.2929\% |
| 2007 | 61,317 | 1,759 | 1,414.2 | 124\% | 2.8687\% | 2.3064\% |
| 2008 | 62,095 | 1,348 | 1,444.4 | 93\% | 2.1709\% | 2.3261\% |
| 2009 | 63,289 | 1,446 | 1,493.5 | 97\% | 2.2848\% | 2.3598\% |
| 2010 | 64,243 | 1,598 | 1,527.1 | 105\% | 2.4874\% | 2.3770\% |
| 2011 | 65,662 | 1,630 | 1,614.2 | 101\% | 2.4824\% | 2.4584\% |
| 2012 | 67,590 | 1,563 | 1,649.4 | 95\% | 2.3125\% | 2.4402\% |
| 2013 | 69,627 | 1,513 | 1,720.6 | 88\% | 2.1730\% | 2.4712\% |
| Total | 623,028 | 15,400 | 14,817.9 | 104\% | 2.4718\% | 2.3784\% |

[^16]
## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN

|  | TABLE 2A |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed <br> (3) $x(6)$ | Expected (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 6 | 0.000000 | 1.5004\% | 1.6674\% | 0.1 | 0.1 | 0\% | 0\% |
| 42 | 0 | 7 | 0.000000 | 1.5298\% | 1.7475\% | 0.1 | 0.1 | 0\% | 0\% |
| 43 | 0 | 7 | 0.000000 | 1.5599\% | 1.8275\% | 0.1 | 0.1 | 0\% | 0\% |
| 44 | 0 | 7 | 0.000000 | 1.5909\% | 1.9075\% | 0.1 | 0.1 | 0\% | 0\% |
| 45 | 0 | 9 | 0.000000 | 1.6226\% | 1.9875\% | 0.1 | 0.2 | 0\% | 0\% |
| 46 | 0 | 10 | 0.000000 | 1.6552\% | 2.0675\% | 0.2 | 0.2 | 0\% | 0\% |
| 47 | 0 | 16 | 0.000000 | 1.6886\% | 2.1476\% | 0.3 | 0.3 | 0\% | 0\% |
| 48 | 0 | 22 | 0.000000 | 1.7229\% | 2.1884\% | 0.4 | 0.5 | 0\% | 0\% |
| 49 | 0 | 23 | 0.000000 | 1.7581\% | 2.2292\% | 0.4 | 0.5 | 0\% | 0\% |
| 50 | 2 | 36 | 0.055556 | 1.7942\% | 2.2700\% | 0.6 | 0.8 | 310\% | 245\% |
| 51 | 0 | 38 | 0.000000 | 1.8312\% | 2.3108\% | 0.7 | 0.9 | 0\% | 0\% |
| 52 | 1 | 42 | 0.023810 | 1.8691\% | 2.3516\% | 0.8 | 1.0 | 127\% | 101\% |
| 53 | 0 | 46 | 0.000000 | 1.8829\% | 2.3536\% | 0.9 | 1.1 | 0\% | 0\% |
| 54 | 0 | 48 | 0.000000 | 1.9720\% | 2.3556\% | 0.9 | 1.1 | 0\% | 0\% |
| 55 | 1 | 60 | 0.016667 | 2.0747\% | 2.3576\% | 1.2 | 1.4 | 80\% | 71\% |
| 56 | 0 | 68 | 0.000000 | 2.1827\% | 2.3595\% | 1.5 | 1.6 | 0\% | 0\% |
| 57 | 0 | 80 | 0.000000 | 2.2621\% | 2.3615\% | 1.8 | 1.9 | 0\% | 0\% |
| 58 | 1 | 89 | 0.011236 | 2.3103\% | 2.3615\% | 2.1 | 2.1 | 49\% | 48\% |
| 59 | 3 | 92 | 0.032609 | 2.3566\% | 2.3615\% | 2.2 | 2.2 | 138\% | 138\% |
| 60 | 1 | 111 | 0.009009 | 2.4063\% | 2.3615\% | 2.7 | 2.6 | 37\% | 38\% |
| 61 | 3 | 120 | 0.025000 | 2.4650\% | 2.3615\% | 3.0 | 2.8 | 101\% | 106\% |
| 62 | 2 | 158 | 0.012658 | 2.5240\% | 2.2875\% | 4.0 | 3.6 | 50\% | 55\% |
| 63 | 4 | 181 | 0.022099 | 2.5946\% | 2.2998\% | 4.7 | 4.2 | 85\% | 96\% |
| 64 | 2 | 162 | 0.012346 | 2.6681\% | 2.3120\% | 4.3 | 3.7 | 46\% | 53\% |
| 65 | 4 | 159 | 0.025157 | 2.7515\% | 2.3242\% | 4.4 | 3.7 | 91\% | 108\% |
| 66 | 1 | 139 | 0.007194 | 2.8292\% | 2.3365\% | 3.9 | 3.2 | 25\% | 31\% |
| 67 | 0 | 129 | 0.000000 | 2.9138\% | 2.3487\% | 3.8 | 3.0 | 0\% | 0\% |
| 68 | 2 | 119 | 0.016807 | 3.0064\% | 2.4534\% | 3.6 | 2.9 | 56\% | 69\% |
| 69 | 1 | 102 | 0.009804 | 3.1199\% | 2.5582\% | 3.2 | 2.6 | 31\% | 38\% |
| 70 | 4 | 78 | 0.051282 | 3.2437\% | 2.6630\% | 2.5 | 2.1 | 158\% | 193\% |
| 71 | 2 | 59 | 0.033898 | 3.3412\% | 2.7677\% | 2.0 | 1.6 | 101\% | 122\% |
| 72 | 0 | 58 | 0.000000 | 3.5067\% | 2.8725\% | 2.0 | 1.7 | 0\% | 0\% |
| 73 | 4 | 54 | 0.074074 | 3.6373\% | 3.1570\% | 2.0 | 1.7 | 204\% | 235\% |
| 74 | 0 | 51 | 0.000000 | 3.8413\% | 3.4415\% | 2.0 | 1.8 | 0\% | 0\% |
| 75 | 1 | 46 | 0.021739 | 4.0146\% | 3.7260\% | 1.8 | 1.7 | 54\% | 58\% |
| 76 | 2 | 39 | 0.051282 | 4.2606\% | 4.0105\% | 1.7 | 1.6 | 120\% | 128\% |
| 77 | 0 | 33 | 0.000000 | 4.6088\% | 4.2950\% | 1.5 | 1.4 | 0\% | 0\% |
| 78 | 4 | 34 | 0.117647 | 4.9180\% | 4.8682\% | 1.7 | 1.7 | 239\% | 242\% |
| 79 | 1 | 26 | 0.038462 | 5.2533\% | 5.4414\% | 1.4 | 1.4 | 73\% | 71\% |
| 80 | 2 | 27 | 0.074074 | 5.7873\% | 6.0146\% | 1.6 | 1.6 | 128\% | 123\% |
| 81 | 1 | 26 | 0.038462 | 6.3390\% | 6.5878\% | 1.6 | 1.7 | 61\% | 58\% |
| 82 | 1 | 22 | 0.045455 | 7.0223\% | 7.1610\% | 1.5 | 1.6 | 65\% | 63\% |
| 83 | 3 | 25 | 0.120000 | 7.6545\% | 8.1535\% | 1.9 | 2.0 | 157\% | 147\% |
| 84 | 3 | 23 | 0.130435 | 8.5682\% | 9.1460\% | 2.0 | 2.1 | 152\% | 143\% |
| 85 | 2 | 18 | 0.111111 | 9.8052\% | 10.1385\% | 1.8 | 1.8 | 113\% | 110\% |
| 86 | 3 | 19 | 0.157895 | 11.1103\% | 11.1311\% | 2.1 | 2.1 | 142\% | 142\% |
| 87 | 1 | 14 | 0.071429 | 12.0668\% | 12.1236\% | 1.7 | 1.7 | 59\% | 59\% |
| 88 | 1 | 10 | 0.100000 | 13.2929\% | 13.6878\% | 1.3 | 1.4 | 75\% | 73\% |
| 89 | 1 | 13 | 0.076923 | 15.2695\% | 15.2521\% | 2.0 | 2.0 | 50\% | 50\% |
| 90 | 1 | 12 | 0.083333 | 17.4349\% | 16.8163\% | 2.1 | 2.0 | 48\% | 50\% |
| 91 | 3 | 14 | 0.214286 | 19.5083\% | 18.3805\% | 2.7 | 2.6 | 110\% | 117\% |
| 92 | 5 | 15 | 0.333333 | 21.3577\% | 19.9447\% | 3.2 | 3.0 | 156\% | 167\% |
| 93 | 0 | 6 | 0.000000 | 24.0427\% | 22.2548\% | 1.4 | 1.3 | 0\% | 0\% |
| 94 | 0 | 6 | 0.000000 | 26.2199\% | 24.5648\% | 1.6 | 1.5 | 0\% | 0\% |
| 95 | 2 | 5 | 0.400000 | 27.9670\% | 26.8748\% | 1.4 | 1.3 | 143\% | 149\% |
| 96 | 1 | 6 | 0.166667 | 30.7660\% | 29.1848\% | 1.8 | 1.8 | 54\% | 57\% |
| 97 | 1 | 7 | 0.142857 | 32.7819\% | 31.4948\% | 2.3 | 2.2 | 44\% | 45\% |
| 98 | 3 | 5 | 0.600000 | 34.0444\% | 34.7464\% | 1.7 | 1.7 | 176\% | 173\% |
| 99 | 1 | 2 | 0.500000 | 36.3323\% | 37.9980\% | 0.7 | 0.8 | 138\% | 132\% |
| Subtotal | 81 | 2,839 |  |  |  | 107.0 | 101.6 | 76\% | 80\% |
| 100 or more | 0 | 0 | N/A | 39.2003\% | 47.7528\% | 0 | 0 | 0\% | 0\% |
| Total | 81 | 2,839 |  |  |  | 107.0 | 101.6 | 76\% | 80\% |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK MORTALITY EXPERIENCE OF DISABILITY RETIREES WOMEN

|  | TABLE 2A |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 21 | 0.000000 | 1.5988\% | 1.0154\% | 0.3 | 0.2 | 0\% | 0\% |
| 42 | 3 | 24 | 0.125000 | 1.6090\% | 1.1108\% | 0.4 | 0.3 | 777\% | 1125\% |
| 43 | 0 | 20 | 0.000000 | 1.6195\% | 1.2063\% | 0.3 | 0.2 | 0\% | 0\% |
| 44 | 2 | 22 | 0.090909 | 1.6302\% | 1.3017\% | 0.4 | 0.3 | 558\% | 698\% |
| 45 | 0 | 38 | 0.000000 | 1.6630\% | 1.3972\% | 0.6 | 0.5 | 0\% | 0\% |
| 46 | 1 | 50 | 0.020000 | 1.6966\% | 1.4926\% | 0.8 | 0.7 | 118\% | 134\% |
| 47 | 1 | 55 | 0.018182 | 1.7311\% | 1.5881\% | 1.0 | 0.9 | 105\% | 114\% |
| 48 | 0 | 72 | 0.000000 | 1.7432\% | 1.6835\% | 1.3 | 1.2 | 0\% | 0\% |
| 49 | 0 | 86 | 0.000000 | 1.7557\% | 1.7790\% | 1.5 | 1.5 | 0\% | 0\% |
| 50 | 1 | 103 | 0.009709 | 1.7451\% | 1.8744\% | 1.8 | 1.9 | 56\% | 52\% |
| 51 | 2 | 133 | 0.015038 | 1.7347\% | 1.9699\% | 2.3 | 2.6 | 87\% | 76\% |
| 52 | 3 | 149 | 0.020134 | 1.7020\% | 2.0653\% | 2.5 | 3.1 | 118\% | 97\% |
| 53 | 3 | 174 | 0.017241 | 1.6702\% | 2.0653\% | 2.9 | 3.6 | 103\% | 83\% |
| 54 | 1 | 197 | 0.005076 | 1.6392\% | 2.0653\% | 3.2 | 4.1 | 31\% | 25\% |
| 55 | 1 | 214 | 0.004673 | 1.6089\% | 2.0653\% | 3.4 | 4.4 | 29\% | 23\% |
| 56 | 2 | 233 | 0.008584 | 1.5795\% | 2.0653\% | 3.7 | 4.8 | 54\% | 42\% |
| 57 | 4 | 272 | 0.014706 | 1.6186\% | 1.9546\% | 4.4 | 5.3 | 91\% | 75\% |
| 58 | 4 | 311 | 0.012862 | 1.7257\% | 1.9546\% | 5.4 | 6.1 | 75\% | 66\% |
| 59 | 9 | 347 | 0.025937 | 1.7653\% | 1.9546\% | 6.1 | 6.8 | 147\% | 133\% |
| 60 | 8 | 373 | 0.021448 | 1.7781\% | 1.9546\% | 6.6 | 7.3 | 121\% | 110\% |
| 61 | 5 | 405 | 0.012346 | 1.7911\% | 1.9546\% | 7.3 | 7.9 | 69\% | 63\% |
| 62 | 7 | 412 | 0.016990 | 1.8043\% | 1.7252\% | 7.4 | 7.1 | 94\% | 98\% |
| 63 | 6 | 407 | 0.014742 | 1.8178\% | 1.7330\% | 7.4 | 7.1 | 81\% | 85\% |
| 64 | 12 | 412 | 0.029126 | 1.8314\% | 1.7409\% | 7.5 | 7.2 | 159\% | 167\% |
| 65 | 6 | 363 | 0.016529 | 1.8453\% | 1.7487\% | 6.7 | 6.3 | 90\% | 95\% |
| 66 | 8 | 332 | 0.024096 | 1.8594\% | 1.7565\% | 6.2 | 5.8 | 130\% | 137\% |
| 67 | 8 | 321 | 0.024922 | 1.8737\% | 1.7644\% | 6.0 | 5.7 | 133\% | 141\% |
| 68 | 6 | 280 | 0.021429 | 1.8882\% | 1.8868\% | 5.3 | 5.3 | 113\% | 114\% |
| 69 | 5 | 252 | 0.019841 | 1.9124\% | 2.0093\% | 4.8 | 5.1 | 104\% | 99\% |
| 70 | 9 | 223 | 0.040359 | 2.0382\% | 2.1318\% | 4.5 | 4.8 | 198\% | 189\% |
| 71 | 5 | 175 | 0.028571 | 2.1701\% | 2.2542\% | 3.8 | 3.9 | 132\% | 127\% |
| 72 | 7 | 168 | 0.041667 | 2.3429\% | 2.3767\% | 3.9 | 4.0 | 178\% | 175\% |
| 73 | 3 | 147 | 0.020408 | 2.5200\% | 2.6582\% | 3.7 | 3.9 | 81\% | 77\% |
| 74 | 4 | 132 | 0.030303 | 2.7403\% | 2.9398\% | 3.6 | 3.9 | 111\% | 103\% |
| 75 | 0 | 124 | 0.000000 | 2.9604\% | 3.2213\% | 3.7 | 4.0 | 0\% | 0\% |
| 76 | 3 | 108 | 0.027778 | 3.1952\% | 3.5029\% | 3.5 | 3.8 | 87\% | 79\% |
| 77 | 4 | 108 | 0.037037 | 3.4579\% | 3.7844\% | 3.7 | 4.1 | 107\% | 98\% |
| 78 | 1 | 105 | 0.009524 | 3.6619\% | 4.2531\% | 3.8 | 4.5 | 26\% | 22\% |
| 79 | 7 | 104 | 0.067308 | 3.8863\% | 4.7217\% | 4.0 | 4.9 | 173\% | 143\% |
| 80 | 7 | 92 | 0.076087 | 4.2597\% | 5.1903\% | 3.9 | 4.8 | 179\% | 147\% |
| 81 | 6 | 80 | 0.075000 | 4.6057\% | 5.6589\% | 3.7 | 4.5 | 163\% | 133\% |
| 82 | 5 | 68 | 0.073529 | 4.9847\% | 6.1275\% | 3.4 | 4.2 | 148\% | 120\% |
| 83 | 5 | 63 | 0.079365 | 5.5641\% | 6.7947\% | 3.5 | 4.3 | 143\% | 117\% |
| 84 | 2 | 60 | 0.033333 | 6.1750\% | 7.4619\% | 3.7 | 4.5 | 54\% | 45\% |
| 85 | 5 | 65 | 0.076923 | 6.8408\% | 8.1291\% | 4.4 | 5.3 | 112\% | 95\% |
| 86 | 4 | 62 | 0.064516 | 7.3598\% | 8.7962\% | 4.6 | 5.5 | 88\% | 73\% |
| 87 | 9 | 57 | 0.157895 | 8.2387\% | 9.4634\% | 4.7 | 5.4 | 192\% | 167\% |
| 88 | 7 | 54 | 0.129630 | 9.4282\% | 10.3242\% | 5.1 | 5.6 | 137\% | 126\% |
| 89 | 8 | 50 | 0.160000 | 10.5446\% | 11.1849\% | 5.3 | 5.6 | 152\% | 143\% |
| 90 | 4 | 53 | 0.075472 | 11.6032\% | 12.0457\% | 6.1 | 6.4 | 65\% | 63\% |
| 91 | 7 | 57 | 0.122807 | 12.9504\% | 12.9065\% | 7.4 | 7.4 | 95\% | 95\% |
| 92 | 11 | 57 | 0.192982 | 14.6618\% | 13.7672\% | 8.4 | 7.8 | 132\% | 140\% |
| 93 | 7 | 50 | 0.140000 | 16.0737\% | 14.8001\% | 8.0 | 7.4 | 87\% | 95\% |
| 94 | 6 | 42 | 0.142857 | 17.5674\% | 15.8330\% | 7.4 | 6.6 | 81\% | 90\% |
| 95 | 2 | 30 | 0.066667 | 18.9886\% | 16.8659\% | 5.7 | 5.1 | 35\% | 40\% |
| 96 | 5 | 26 | 0.192308 | 20.6983\% | 17.8988\% | 5.4 | 4.7 | 93\% | 107\% |
| 97 | 3 | 20 | 0.150000 | 22.2344\% | 18.9317\% | 4.4 | 3.8 | 67\% | 79\% |
| 98 | 4 | 14 | 0.285714 | 23.0718\% | 20.0987\% | 3.2 | 2.8 | 124\% | 142\% |
| 99 | 2 | 15 | 0.133333 | 23.4718\% | 21.2658\% | 3.5 | 3.2 | 57\% | 63\% |
| Subtotal | 260 | 8,487 |  |  |  | 247.8 | 259.7 | 105\% | 100\% |
| 100 or more | 13 | 38 | 0.342105 | 25.4498\% | 24.7670\% | 9.7 | 9.4 | 134\% | 138\% |
| Total | 273 | 8,525 |  |  |  | 257.5 | 269.1 | 106\% | 101\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## MORTALITY EXPERIENCE OF DISABILITY RETIREES

 MEN|  | TABLE 2A GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected $(7) /(\mathbf{3})$ | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 27 | 0.000000 | 1.5469\% | 1.7919\% | 0.4 | 0.5 | 0\% | 0\% |
| 45-49 | 0 | 80 | 0.000000 | 1.7064\% | 2.1543\% | 1.4 | 1.7 | 0\% | 0\% |
| 50-54 | 3 | 210 | 0.014286 | 1.8759\% | 2.3316\% | 3.9 | 4.9 | 76\% | 61\% |
| 55-59 | 5 | 389 | 0.012853 | 2.2527\% | 2.3606\% | 8.8 | 9.2 | 57\% | 54\% |
| 60-64 | 12 | 732 | 0.016393 | 2.5458\% | 2.3193\% | 18.6 | 17.0 | 64\% | 71\% |
| 65-69 | 8 | 648 | 0.012346 | 2.9053\% | 2.3923\% | 18.8 | 15.5 | 42\% | 52\% |
| 70-74 | 10 | 300 | 0.033333 | 3.4862\% | 2.9453\% | 10.5 | 8.8 | 96\% | 113\% |
| 75-79 | 8 | 178 | 0.044944 | 4.5322\% | 4.3626\% | 8.1 | 7.8 | 99\% | 103\% |
| 80-84 | 10 | 123 | 0.081301 | 7.0243\% | 7.3611\% | 8.6 | 9.1 | 116\% | 110\% |
| 85-89 | 8 | 74 | 0.108108 | 11.9994\% | 12.1469\% | 8.9 | 9.0 | 90\% | 89\% |
| 90-94 | 9 | 53 | 0.169811 | 20.8354\% | 19.6078\% | 11.0 | 10.4 | 82\% | 87\% |
| 95-99 | 8 | 25 | 0.320000 | 31.8716\% | 31.1870\% | 8.0 | 7.8 | 100\% | 103\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 81 | 2,839 |  |  |  | 107.0 | 101.6 | 76\% | 80\% |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK MORTALITY EXPERIENCE OF DISABILITY RETIREES WOMEN

|  | TABLE 2A GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected $(7) /(\mathbf{3})$ | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 5 | 87 | 0.057471 | 1.6143\% | 1.1580\% | 1.4 | 1.0 | 356\% | 496\% |
| 45-49 | 2 | 301 | 0.006645 | 1.7267\% | 1.6255\% | 5.2 | 4.9 | 38\% | 41\% |
| 50-54 | 10 | 756 | 0.013228 | 1.6899\% | 2.0225\% | 12.8 | 15.3 | 78\% | 65\% |
| 55-59 | 20 | 1,377 | 0.014524 | 1.6716\% | 1.9905\% | 23.0 | 27.4 | 87\% | 73\% |
| 60-64 | 38 | 2,009 | 0.018915 | 1.8051\% | 1.8188\% | 36.3 | 36.5 | 105\% | 104\% |
| 65-69 | 33 | 1,548 | 0.021318 | 1.8729\% | 1.8210\% | 29.0 | 28.2 | 114\% | 117\% |
| 70-74 | 28 | 845 | 0.033136 | 2.3196\% | 2.4236\% | 19.6 | 20.5 | 143\% | 137\% |
| 75-79 | 15 | 549 | 0.027322 | 3.4140\% | 3.8690\% | 18.7 | 21.2 | 80\% | 71\% |
| 80-84 | 25 | 363 | 0.068871 | 5.0147\% | 6.1231\% | 18.2 | 22.2 | 137\% | 112\% |
| 85-89 | 33 | 288 | 0.114583 | 8.3574\% | 9.4789\% | 24.1 | 27.3 | 137\% | 121\% |
| 90-94 | 35 | 259 | 0.135135 | 14.4030\% | 13.7599\% | 37.3 | 35.6 | 94\% | 98\% |
| 95-99 | 16 | 105 | 0.152381 | 21.2151\% | 18.5747\% | 22.3 | 19.5 | 72\% | 82\% |
| 100+ | 13 | 38 | 0.342105 | 25.4498\% | 24.7670\% | 9.7 | 9.4 | 134\% | 138\% |
| Total | 273 | 8,525 |  |  |  | 257.5 | 269.1 | 106\% | 101\% |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN

| Age | TABLE 2A |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \quad(2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 9 | 0.000000 | 1.5416\% | 1.8100\% | 0.1 | 0.2 | 0\% | 0\% |
| 42 | 0 | 13 | 0.000000 | 1.5766\% | 1.9033\% | 0.2 | 0.2 | 0\% | 0\% |
| 43 | 0 | 19 | 0.000000 | 1.6126\% | 1.9933\% | 0.3 | 0.4 | 0\% | 0\% |
| 44 | 1 | 20 | 0.050000 | 1.6495\% | 2.0795\% | 0.3 | 0.4 | 303\% | 240\% |
| 45 | 0 | 28 | 0.000000 | 1.6876\% | 2.1618\% | 0.5 | 0.6 | 0\% | 0\% |
| 46 | 1 | 35 | 0.028571 | 1.7267\% | 2.2401\% | 0.6 | 0.8 | 165\% | 128\% |
| 47 | 1 | 44 | 0.022727 | 1.7669\% | 2.3151\% | 0.8 | 1.0 | 129\% | 98\% |
| 48 | 1 | 52 | 0.019231 | 1.8083\% | 2.3449\% | 0.9 | 1.2 | 106\% | 82\% |
| 49 | 2 | 55 | 0.036364 | 1.8509\% | 2.3721\% | 1.0 | 1.3 | 196\% | 153\% |
| 50 | 4 | 76 | 0.052632 | 1.8946\% | 2.3969\% | 1.4 | 1.8 | 278\% | 220\% |
| 51 | 2 | 84 | 0.023810 | 1.9396\% | 2.4195\% | 1.6 | 2.0 | 123\% | 98\% |
| 52 | 1 | 98 | 0.010204 | 1.9859\% | 2.4399\% | 1.9 | 2.4 | 51\% | 42\% |
| 53 | 2 | 125 | 0.016000 | 2.0006\% | 2.4198\% | 2.5 | 3.0 | 80\% | 66\% |
| 54 | 3 | 154 | 0.019481 | 2.0952\% | 2.4026\% | 3.2 | 3.7 | 93\% | 81\% |
| 55 | 3 | 196 | 0.015306 | 2.1976\% | 2.3904\% | 4.3 | 4.7 | 70\% | 64\% |
| 56 | 7 | 247 | 0.028340 | 2.3049\% | 2.3840\% | 5.7 | 5.9 | 123\% | 119\% |
| 57 | 6 | 291 | 0.020619 | 2.3815\% | 2.3848\% | 6.9 | 6.9 | 87\% | 86\% |
| 58 | 8 | 308 | 0.025974 | 2.4249\% | 2.3903\% | 7.5 | 7.4 | 107\% | 109\% |
| 59 | 14 | 321 | 0.043614 | 2.4734\% | 2.4016\% | 7.9 | 7.7 | 176\% | 182\% |
| 60 | 6 | 330 | 0.018182 | 2.5256\% | 2.4179\% | 8.3 | 8.0 | 72\% | 75\% |
| 61 | 11 | 338 | 0.032544 | 2.5793\% | 2.4368\% | 8.7 | 8.2 | 126\% | 134\% |
| 62 | 6 | 337 | 0.017804 | 2.6411\% | 2.3796\% | 8.9 | 8.0 | 67\% | 75\% |
| 63 | 5 | 334 | 0.014970 | 2.7067\% | 2.4106\% | 9.0 | 8.1 | 55\% | 62\% |
| 64 | 5 | 301 | 0.016611 | 2.7834\% | 2.4397\% | 8.4 | 7.3 | 60\% | 68\% |
| 65 | 8 | 287 | 0.027875 | 2.8704\% | 2.4667\% | 8.2 | 7.1 | 97\% | 113\% |
| 66 | 2 | 243 | 0.008230 | 2.9424\% | 2.4913\% | 7.2 | 6.1 | 28\% | 33\% |
| 67 | 1 | 216 | 0.004630 | 3.0305\% | 2.5144\% | 6.5 | 5.4 | 15\% | 18\% |
| 68 | 3 | 201 | 0.014925 | 3.1363\% | 2.6346\% | 6.3 | 5.3 | 48\% | 57\% |
| 69 | 3 | 175 | 0.017143 | 3.2547\% | 2.7547\% | 5.7 | 4.8 | 53\% | 62\% |
| 70 | 6 | 152 | 0.039474 | 3.3942\% | 2.8740\% | 5.2 | 4.4 | 116\% | 137\% |
| 71 | 3 | 127 | 0.023622 | 3.4962\% | 2.9929\% | 4.4 | 3.8 | 68\% | 79\% |
| 72 | 2 | 126 | 0.015873 | 3.6694\% | 3.1113\% | 4.6 | 3.9 | 43\% | 51\% |
| 73 | 6 | 112 | 0.053571 | 3.8060\% | 3.4240\% | 4.3 | 3.8 | 141\% | 156\% |
| 74 | 4 | 110 | 0.036364 | 4.0195\% | 3.7360\% | 4.4 | 4.1 | 90\% | 97\% |
| 75 | 2 | 103 | 0.019417 | 4.1881\% | 4.0465\% | 4.3 | 4.2 | 46\% | 48\% |
| 76 | 5 | 95 | 0.052632 | 4.4447\% | 4.3564\% | 4.2 | 4.1 | 118\% | 121\% |
| 77 | 4 | 90 | 0.044444 | 4.7934\% | 4.6640\% | 4.3 | 4.2 | 93\% | 95\% |
| 78 | 8 | 82 | 0.097561 | 5.0994\% | 5.2821\% | 4.2 | 4.3 | 191\% | 185\% |
| 79 | 3 | 72 | 0.041667 | 5.4305\% | 5.8980\% | 3.9 | 4.2 | 77\% | 71\% |
| 80 | 5 | 70 | 0.071429 | 5.9645\% | 6.5119\% | 4.2 | 4.6 | 120\% | 110\% |
| 81 | 4 | 65 | 0.061538 | 6.5133\% | 7.1230\% | 4.2 | 4.6 | 94\% | 86\% |
| 82 | 3 | 57 | 0.052632 | 7.1935\% | 7.7316\% | 4.1 | 4.4 | 73\% | 68\% |
| 83 | 5 | 60 | 0.083333 | 7.8411\% | 8.7906\% | 4.7 | 5.3 | 106\% | 95\% |
| 84 | 5 | 57 | 0.087719 | 8.7507\% | 9.8465\% | 5.0 | 5.6 | 100\% | 89\% |
| 85 | 6 | 56 | 0.107143 | 10.0141\% | 10.8994\% | 5.6 | 6.1 | 107\% | 98\% |
| 86 | 6 | 57 | 0.105263 | 11.3470\% | 11.9481\% | 6.5 | 6.8 | 93\% | 88\% |
| 87 | 4 | 52 | 0.076923 | 12.2866\% | 12.9922\% | 6.4 | 6.8 | 63\% | 59\% |
| 88 | 6 | 47 | 0.127660 | 13.4943\% | 14.6400\% | 6.3 | 6.9 | 95\% | 87\% |
| 89 | 7 | 42 | 0.166667 | 15.5008\% | 16.2764\% | 6.5 | 6.8 | 108\% | 102\% |
| 90 | 9 | 43 | 0.209302 | 17.6458\% | 17.8999\% | 7.6 | 7.7 | 119\% | 117\% |
| 91 | 8 | 37 | 0.216216 | 19.7443\% | 19.5091\% | 7.3 | 7.2 | 110\% | 111\% |
| 92 | 9 | 33 | 0.272727 | 21.5511\% | 21.0982\% | 7.1 | 7.0 | 127\% | 129\% |
| 93 | 1 | 21 | 0.047619 | 24.2604\% | 23.4462\% | 5.1 | 4.9 | 20\% | 20\% |
| 94 | 4 | 19 | 0.210526 | 26.4573\% | 25.7826\% | 5.0 | 4.9 | 80\% | 82\% |
| 95 | 3 | 14 | 0.214286 | 28.1355\% | 28.1157\% | 3.9 | 3.9 | 76\% | 76\% |
| 96 | 2 | 9 | 0.222222 | 30.9513\% | 30.4581\% | 2.8 | 2.7 | 72\% | 73\% |
| 97 | 1 | 9 | 0.111111 | 32.9794\% | 32.7890\% | 3.0 | 3.0 | 34\% | 34\% |
| 98 | 3 | 7 | 0.428571 | 34.1468\% | 36.0863\% | 2.4 | 2.5 | 126\% | 119\% |
| 99 | 4 | 5 | 0.800000 | 36.4415\% | 39.3715\% | 1.8 | 2.0 | 220\% | 203\% |
| Subtotal | 244 | 6,766 |  |  |  | 268.6 | 264.8 | 91\% | 92\% |
| 100 or more | 1 | 1 | 1.000000 | 39.2003\% | 49.4789\% | 0.4 | 0.5 | 255\% | 202\% |
| Total | 245 | 6,767 |  |  |  | 269.0 | 265.3 | 91\% | 92\% |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK MORTALITY EXPERIENCE OF DISABILITY RETIREES WOMEN

| Age | TABLE 2A |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 53 | 0.000000 | 1.6730\% | 1.0907\% | 0.9 | 0.6 | 0\% | 0\% |
| 42 | 3 | 57 | 0.052632 | 1.6836\% | 1.1892\% | 1.0 | 0.7 | 313\% | 443\% |
| 43 | 1 | 56 | 0.017857 | 1.6946\% | 1.2845\% | 0.9 | 0.7 | 105\% | 139\% |
| 44 | 3 | 66 | 0.045455 | 1.7058\% | 1.3765\% | 1.1 | 0.9 | 266\% | 330\% |
| 45 | 0 | 95 | 0.000000 | 1.7454\% | 1.4657\% | 1.7 | 1.4 | 0\% | 0\% |
| 46 | 2 | 115 | 0.017391 | 1.7861\% | 1.5519\% | 2.1 | 1.8 | 97\% | 112\% |
| 47 | 3 | 141 | 0.021277 | 1.8280\% | 1.6357\% | 2.6 | 2.3 | 116\% | 130\% |
| 48 | 3 | 178 | 0.016854 | 1.8409\% | 1.7183\% | 3.3 | 3.1 | 92\% | 98\% |
| 49 | 6 | 205 | 0.029268 | 1.8540\% | 1.8016\% | 3.8 | 3.7 | 158\% | 162\% |
| 50 | 3 | 236 | 0.012712 | 1.8372\% | 1.8876\% | 4.3 | 4.5 | 69\% | 67\% |
| 51 | 6 | 281 | 0.021352 | 1.8207\% | 1.9774\% | 5.1 | 5.6 | 117\% | 108\% |
| 52 | 6 | 332 | 0.018072 | 1.7756\% | 2.0728\% | 5.9 | 6.9 | 102\% | 87\% |
| 53 | 4 | 406 | 0.009852 | 1.7318\% | 2.0780\% | 7.0 | 8.4 | 57\% | 47\% |
| 54 | 6 | 495 | 0.012121 | 1.6893\% | 2.0884\% | 8.4 | 10.3 | 72\% | 58\% |
| 55 | 11 | 578 | 0.019031 | 1.6482\% | 2.1034\% | 9.5 | 12.2 | 115\% | 90\% |
| 56 | 12 | 663 | 0.018100 | 1.6082\% | 2.1210\% | 10.7 | 14.1 | 113\% | 85\% |
| 57 | 12 | 722 | 0.016620 | 1.6431\% | 2.0254\% | 11.9 | 14.6 | 101\% | 82\% |
| 58 | 14 | 780 | 0.017949 | 1.7518\% | 2.0436\% | 13.7 | 15.9 | 102\% | 88\% |
| 59 | 21 | 812 | 0.025862 | 1.7920\% | 2.0609\% | 14.6 | 16.7 | 144\% | 125\% |
| 60 | 15 | 846 | 0.017730 | 1.8050\% | 2.0758\% | 15.3 | 17.6 | 98\% | 85\% |
| 61 | 13 | 869 | 0.014960 | 1.8182\% | 2.0884\% | 15.8 | 18.1 | 82\% | 72\% |
| 62 | 14 | 838 | 0.016706 | 1.8317\% | 1.8515\% | 15.3 | 15.5 | 91\% | 90\% |
| 63 | 16 | 822 | 0.019465 | 1.8453\% | 1.8660\% | 15.2 | 15.3 | 105\% | 104\% |
| 64 | 19 | 791 | 0.024020 | 1.8592\% | 1.8781\% | 14.7 | 14.9 | 129\% | 128\% |
| 65 | 11 | 709 | 0.015515 | 1.8733\% | 1.8881\% | 13.3 | 13.4 | 83\% | 82\% |
| 66 | 11 | 649 | 0.016949 | 1.8876\% | 1.8969\% | 12.3 | 12.3 | 90\% | 89\% |
| 67 | 16 | 590 | 0.027119 | 1.9021\% | 1.9046\% | 11.2 | 11.2 | 143\% | 142\% |
| 68 | 16 | 521 | 0.030710 | 1.9168\% | 2.0353\% | 10.0 | 10.6 | 160\% | 151\% |
| 69 | 8 | 472 | 0.016949 | 1.9414\% | 2.1656\% | 9.2 | 10.2 | 87\% | 78\% |
| 70 | 18 | 429 | 0.041958 | 2.0691\% | 2.2953\% | 8.9 | 9.8 | 203\% | 183\% |
| 71 | 10 | 368 | 0.027174 | 2.2096\% | 2.4246\% | 8.1 | 8.9 | 123\% | 112\% |
| 72 | 9 | 344 | 0.026163 | 2.3856\% | 2.5535\% | 8.2 | 8.8 | 110\% | 102\% |
| 73 | 7 | 325 | 0.021538 | 2.5737\% | 2.8531\% | 8.4 | 9.3 | 84\% | 75\% |
| 74 | 11 | 300 | 0.036667 | 2.7986\% | 3.1514\% | 8.4 | 9.5 | 131\% | 116\% |
| 75 | 7 | 276 | 0.025362 | 3.0326\% | 3.4497\% | 8.4 | 9.5 | 84\% | 74\% |
| 76 | 8 | 251 | 0.031873 | 3.2731\% | 3.7481\% | 8.2 | 9.4 | 97\% | 85\% |
| 77 | 7 | 243 | 0.028807 | 3.5315\% | 4.0473\% | 8.6 | 9.8 | 82\% | 71\% |
| 78 | 4 | 229 | 0.017467 | 3.7399\% | 4.5471\% | 8.6 | 10.4 | 47\% | 38\% |
| 79 | 8 | 220 | 0.036364 | 3.9690\% | 5.0496\% | 8.7 | 11.1 | 92\% | 72\% |
| 80 | 12 | 217 | 0.055300 | 4.3504\% | 5.5530\% | 9.4 | 12.1 | 127\% | 100\% |
| 81 | 13 | 207 | 0.062802 | 4.7037\% | 6.0594\% | 9.7 | 12.5 | 134\% | 104\% |
| 82 | 13 | 197 | 0.065990 | 5.0909\% | 6.5665\% | 10.0 | 12.9 | 130\% | 100\% |
| 83 | 13 | 189 | 0.068783 | 5.6826\% | 7.2897\% | 10.7 | 13.8 | 121\% | 94\% |
| 84 | 8 | 191 | 0.041885 | 6.3065\% | 8.0129\% | 12.0 | 15.3 | 66\% | 52\% |
| 85 | 13 | 200 | 0.065000 | 6.9654\% | 8.7365\% | 13.9 | 17.5 | 93\% | 74\% |
| 86 | 15 | 200 | 0.075000 | 7.4713\% | 9.4574\% | 14.9 | 18.9 | 100\% | 79\% |
| 87 | 13 | 194 | 0.067010 | 8.3383\% | 10.1716\% | 16.2 | 19.7 | 80\% | 66\% |
| 88 | 22 | 204 | 0.107843 | 9.5422\% | 11.0876\% | 19.5 | 22.6 | 113\% | 97\% |
| 89 | 27 | 186 | 0.145161 | 10.6401\% | 11.9985\% | 19.8 | 22.3 | 136\% | 121\% |
| 90 | 21 | 172 | 0.122093 | 11.7082\% | 12.9008\% | 20.1 | 22.2 | 104\% | 95\% |
| 91 | 15 | 157 | 0.095541 | 13.0676\% | 13.7930\% | 20.5 | 21.7 | 73\% | 69\% |
| 92 | 27 | 144 | 0.187500 | 14.7946\% | 14.6723\% | 21.3 | 21.1 | 127\% | 128\% |
| 93 | 25 | 127 | 0.196850 | 16.1706\% | 15.7217\% | 20.5 | 20.0 | 122\% | 125\% |
| 94 | 17 | 106 | 0.160377 | 17.6732\% | 16.7606\% | 18.7 | 17.8 | 91\% | 96\% |
| 95 | 14 | 88 | 0.159091 | 19.1030\% | 17.7923\% | 16.8 | 15.7 | 83\% | 89\% |
| 96 | 15 | 74 | 0.202703 | 20.8230\% | 18.8301\% | 15.4 | 13.9 | 97\% | 108\% |
| 97 | 7 | 57 | 0.122807 | 22.3013\% | 19.8581\% | 12.7 | 11.3 | 55\% | 62\% |
| 98 | 15 | 47 | 0.319149 | 23.1412\% | 21.0246\% | 10.9 | 9.9 | 138\% | 152\% |
| 99 | 4 | 32 | 0.125000 | 23.5424\% | 22.1823\% | 7.5 | 7.1 | 53\% | 56\% |
| Subtotal | 653 | 19,352 |  |  |  | 625.8 | 688.3 | 104\% | 95\% |
| 100 or more | 24 | 71 | 0.338028 | 25.4498\% | 25.8344\% | 18.1 | 18.3 | 133\% | 131\% |
| Total | 677 | 19,423 |  |  |  | 643.9 | 706.7 | 105\% | 96\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## MORTALITY EXPERIENCE OF DISABILITY RETIREES

 MEN|  | TABLE 2A GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 1 | 61 | 0.016393 | 1.6066\% | 1.9753\% | 1.0 | 1.2 | 102\% | 83\% |
| 45-49 | 5 | 214 | 0.023364 | 1.7816\% | 2.3047\% | 3.8 | 4.9 | 131\% | 101\% |
| 50-54 | 12 | 537 | 0.022346 | 2.0005\% | 2.4152\% | 10.7 | 13.0 | 112\% | 93\% |
| 55-59 | 38 | 1,363 | 0.027880 | 2.3726\% | 2.3907\% | 32.3 | 32.6 | 118\% | 117\% |
| 60-64 | 33 | 1,640 | 0.020122 | 2.6446\% | 2.4164\% | 43.4 | 39.6 | 76\% | 83\% |
| 65-69 | 17 | 1,122 | 0.015152 | 3.0244\% | 2.5562\% | 33.9 | 28.7 | 50\% | 59\% |
| 70-74 | 21 | 627 | 0.033493 | 3.6534\% | 3.1952\% | 22.9 | 20.0 | 92\% | 105\% |
| 75-79 | 22 | 442 | 0.049774 | 4.7379\% | 4.7697\% | 20.9 | 21.1 | 105\% | 104\% |
| 80-84 | 22 | 309 | 0.071197 | 7.1850\% | 7.9230\% | 22.2 | 24.5 | 99\% | 90\% |
| 85-89 | 29 | 254 | 0.114173 | 12.3297\% | 13.1444\% | 31.3 | 33.4 | 93\% | 87\% |
| 90-94 | 31 | 153 | 0.202614 | 20.9977\% | 20.7190\% | 32.1 | 31.7 | 96\% | 98\% |
| 95-99 | 13 | 44 | 0.295455 | 31.6025\% | 32.0978\% | 13.9 | 14.1 | 93\% | 92\% |
| 100+ | 1 | 1 | 1.000000 | 39.2003\% | 49.4789\% | 0.4 | 0.5 | 255\% | 202\% |
| Total | 245 | 6,767 |  |  |  | 269.0 | 265.3 | 91\% | 92\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## MORTALITY EXPERIENCE OF DISABILITY RETIREES

 WOMEN|  | TABLE 2A GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate | Expected $(7) /(\mathbf{3})$ | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 7 | 232 | 0.030172 | 1.6901\% | 1.2430\% | 3.9 | 2.9 | 179\% | 243\% |
| 45-49 | 14 | 734 | 0.019074 | 1.8211\% | 1.6669\% | 13.4 | 12.2 | 105\% | 114\% |
| 50-54 | 25 | 1,750 | 0.014286 | 1.7566\% | 2.0381\% | 30.7 | 35.7 | 81\% | 70\% |
| 55-59 | 70 | 3,555 | 0.019691 | 1.6953\% | 2.0680\% | 60.3 | 73.5 | 116\% | 95\% |
| 60-64 | 77 | 4,166 | 0.018483 | 1.8314\% | 1.9544\% | 76.3 | 81.4 | 101\% | 95\% |
| 65-69 | 62 | 2,941 | 0.021081 | 1.9009\% | 1.9640\% | 55.9 | 57.8 | 111\% | 107\% |
| 70-74 | 55 | 1,766 | 0.031144 | 2.3768\% | 2.6206\% | 42.0 | 46.3 | 131\% | 119\% |
| 75-79 | 34 | 1,219 | 0.027892 | 3.4834\% | 4.1251\% | 42.5 | 50.3 | 80\% | 68\% |
| 80-84 | 59 | 1,001 | 0.058941 | 5.1940\% | 6.6545\% | 52.0 | 66.6 | 113\% | 89\% |
| 85-89 | 90 | 984 | 0.091463 | 8.5677\% | 10.2700\% | 84.3 | 101.1 | 107\% | 89\% |
| 90-94 | 105 | 706 | 0.148725 | 14.3383\% | 14.5475\% | 101.2 | 102.7 | 104\% | 102\% |
| 95-99 | 55 | 298 | 0.184564 | 21.2555\% | 19.4264\% | 63.3 | 57.9 | 87\% | 95\% |
| 100+ | 24 | 71 | 0.338028 | 25.4498\% | 25.8344\% | 18.1 | 18.3 | 133\% | 131\% |
| Total | 677 | 19,423 |  |  |  | 643.9 | 706.7 | 105\% | 96\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## MORTALITY EXPERIENCE OF DISABILITY RETIREES

MEN AND WOMEN

| Plan <br> Year <br> Ending <br> June 30, | TABLE 2B <br> Life Years Exposed | Actual <br> Deaths | Expected <br> Deaths | 10-YEAR PERIOD ENDING 6/30/2013 $\qquad$ <br> Mortality Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / <br> Expected | $\begin{aligned} & \hline \text { Actual } \\ & \text { (3) } /(2) \\ & \hline \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 2,284 | 94 | 79.6 | 118\% | 4.1156\% | 3.4859\% |
| 2005 | 2,355 | 97 | 80.6 | 120\% | 4.1189\% | 3.4227\% |
| 2006 | 2,479 | 98 | 80.8 | 121\% | 3.9532\% | 3.2600\% |
| 2007 | 2,552 | 120 | 80.6 | 149\% | 4.7022\% | 3.1577\% |
| 2008 | 2,600 | 82 | 80.5 | 102\% | 3.1538\% | 3.0966\% |
| 2009 | 2,633 | 78 | 82.0 | 95\% | 2.9624\% | 3.1146\% |
| 2010 | 2,753 | 89 | 82.4 | 108\% | 3.2328\% | 2.9927\% |
| 2011 | 2,689 | 90 | 81.8 | 110\% | 3.3470\% | 3.0434\% |
| 2012 | 2,968 | 101 | 84.7 | 119\% | 3.4030\% | 2.8540\% |
| 2013 | 3,036 | 74 | 84.1 | 88\% | 2.4374\% | 2.7716\% |
| Total | 26,349 | 923 | 817.2 | 113\% | 3.5030\% | 3.1015\% |

[^17]
## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS
MEN AND WOMEN

| Service | TABLE 3A |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Withdrawals | Total Exposed | Actual Rate$(2) /(3)$ | Assumed Probability |  | Expected Withdrawals |  | Actual/ Expected |  |
|  |  |  |  | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 0 | 707 | 15,313 | 0.0462 | 9.00\% | 8.79\% | 1,378.2 | 1,346.0 | 51\% | 53\% |
| 1 | 2,333 | 31,538 | 0.0740 | 8.00\% | 8.04\% | 2,523.0 | 2,535.7 | 92\% | 92\% |
| 2 | 3,572 | 34,288 | 0.1042 | 7.00\% | 7.33\% | 2,400.2 | 2,513.3 | 149\% | 142\% |
| 3 | 2,875 | 31,497 | 0.0913 | 6.00\% | 6.66\% | 1,889.8 | 2,097.7 | 152\% | 137\% |
| 4 | 2,021 | 31,484 | 0.0642 | 5.00\% | 6.02\% | 1,574.2 | 1,895.3 | 128\% | 107\% |
| 5 | 1,393 | 25,428 | 0.0548 | 4.00\% | 5.41\% | 1,017.1 | 1,375.7 | 137\% | 101\% |
| 6 | 1,078 | 22,881 | 0.0471 | 3.50\% | 4.84\% | 800.8 | 1,107.4 | 135\% | 97\% |
| 7 | 756 | 19,910 | 0.0380 | 3.05\% | 4.30\% | 607.3 | 856.1 | 124\% | 88\% |
| 8 | 470 | 16,109 | 0.0292 | 2.65\% | 3.80\% | 426.9 | 612.1 | 110\% | 77\% |
| 9 | 303 | 13,804 | 0.0220 | 2.30\% | 3.33\% | 317.5 | 459.7 | 95\% | 66\% |
| 10 | 260 | 12,930 | 0.0201 | 2.00\% | 2.89\% | 258.6 | 373.7 | 101\% | 70\% |
| 11 | 207 | 10,610 | 0.0195 | 1.75\% | 2.49\% | 185.7 | 264.2 | 111\% | 78\% |
| 12 | 153 | 9,053 | 0.0169 | 1.55\% | 2.13\% | 140.3 | 192.8 | 109\% | 79\% |
| 13 | 107 | 7,366 | 0.0145 | 1.40\% | 1.80\% | 103.1 | 132.6 | 104\% | 81\% |
| 14 | 105 | 6,790 | 0.0155 | 1.30\% | 1.50\% | 88.3 | 101.9 | 119\% | 103\% |
| 15 | 71 | 5,944 | 0.0119 | 1.25\% | 1.24\% | 74.3 | 73.7 | 96\% | 96\% |
| 16 | 72 | 5,993 | 0.0120 | 1.20\% | 1.01\% | 71.9 | 60.5 | 100\% | 119\% |
| 17 | 57 | 5,556 | 0.0103 | 1.15\% | 0.82\% | 63.9 | 45.6 | 89\% | 125\% |
| 18 | 45 | 5,469 | 0.0082 | 1.10\% | 0.66\% | 60.2 | 36.1 | 75\% | 125\% |
| 19 | 44 | 5,164 | 0.0085 | 1.05\% | 0.53\% | 54.2 | 27.4 | 81\% | 161\% |
| 20 | 40 | 5,041 | 0.0079 | 1.00\% | 0.44\% | 50.4 | 22.2 | 79\% | 180\% |
| 21 | 21 | 4,554 | 0.0046 | 0.90\% | 0.39\% | 41.0 | 17.8 | 51\% | 118\% |
| 22 | 21 | 4,400 | 0.0048 | 0.80\% | 0.37\% | 35.2 | 16.3 | 60\% | 129\% |
| 23 | 18 | 3,635 | 0.0050 | 0.70\% | 0.37\% | 25.4 | 13.4 | 71\% | 134\% |
| 24 | 19 | 3,072 | 0.0062 | 0.60\% | 0.37\% | 18.4 | 11.4 | 103\% | 167\% |
| 25 | 22 | 2,410 | 0.0091 | 0.50\% | 0.37\% | 12.1 | 8.9 | 183\% | 247\% |
| 26 | 14 | 1,988 | 0.0070 | 0.50\% | 0.37\% | 9.9 | 7.4 | 141\% | 190\% |
| 27 | 10 | 1,421 | 0.0070 | 0.50\% | 0.37\% | 7.1 | 5.3 | 141\% | 190\% |
| 28 | 11 | 1,333 | 0.0083 | 0.50\% | 0.37\% | 6.7 | 4.9 | 165\% | 223\% |
| 29 | 12 | 977 | 0.0123 | 0.50\% | 0.37\% | 4.9 | 3.6 | 246\% | 332\% |
| 30 | 9 | 655 | 0.0137 | 0.50\% | 0.37\% | 3.3 | 2.4 | 275\% | 371\% |
| Subtotal | 16,826 | 346,613 | 0.0485 |  |  | 14,249.9 | 16,221.0 | 118\% | 104\% |
| 31 or more | 66 | 907 | 0.0728 | 0.50\% | 0.37\% | 4.5 | 3.4 | 1455\% | 1967\% |
| Total | 16,892 | 347,520 | 0.0486 |  |  | 14,254.4 | 16,224.3 | 119\% | 104\% |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS
MEN AND WOMEN

| Service | TABLE 3A |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Withdrawals | Total <br> Exposed | Actual Rate$(2) /(3)$ | Assumed Probability |  | Expected Withdrawals |  | Actual/ Expected |  |
|  |  |  |  | Expected | Proposed | Expected $\text { (3) } \times(5)$ | Proposed $(3) \times(6)$ | Expected (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 0 | 1,878 | 25,692 | 0.0731 | 9.00\% | 8.79\% | 2,312.3 | 2,258.3 | 81\% | 83\% |
| 1 | 6,080 | 70,349 | 0.0864 | 8.00\% | 8.04\% | 5,627.9 | 5,656.1 | 108\% | 107\% |
| 2 | 8,706 | 84,845 | 0.1026 | 7.00\% | 7.33\% | 5,939.2 | 6,219.1 | 147\% | 140\% |
| 3 | 5,743 | 66,260 | 0.0867 | 6.00\% | 6.66\% | 3,975.6 | 4,412.9 | 144\% | 130\% |
| 4 | 3,736 | 59,363 | 0.0629 | 5.00\% | 6.02\% | 2,968.2 | 3,573.7 | 126\% | 105\% |
| 5 | 2,495 | 44,995 | 0.0555 | 4.00\% | 5.41\% | 1,799.8 | 2,434.2 | 139\% | 102\% |
| 6 | 1,984 | 41,382 | 0.0479 | 3.50\% | 4.84\% | 1,448.4 | 2,002.9 | 137\% | 99\% |
| 7 | 1,297 | 32,719 | 0.0396 | 3.05\% | 4.30\% | 997.9 | 1,406.9 | 130\% | 92\% |
| 8 | 904 | 28,096 | 0.0322 | 2.65\% | 3.80\% | 744.5 | 1,067.6 | 121\% | 85\% |
| 9 | 573 | 22,622 | 0.0253 | 2.30\% | 3.33\% | 520.3 | 753.3 | 110\% | 76\% |
| 10 | 529 | 21,615 | 0.0245 | 2.00\% | 2.89\% | 432.3 | 624.7 | 122\% | 85\% |
| 11 | 390 | 18,150 | 0.0215 | 1.75\% | 2.49\% | 317.6 | 451.9 | 123\% | 86\% |
| 12 | 354 | 17,461 | 0.0203 | 1.55\% | 2.13\% | 270.6 | 371.9 | 131\% | 95\% |
| 13 | 244 | 14,576 | 0.0167 | 1.40\% | 1.80\% | 204.1 | 262.4 | 120\% | 93\% |
| 14 | 246 | 14,789 | 0.0166 | 1.30\% | 1.50\% | 192.3 | 221.8 | 128\% | 111\% |
| 15 | 178 | 12,679 | 0.0140 | 1.25\% | 1.24\% | 158.5 | 157.2 | 112\% | 113\% |
| 16 | 181 | 13,426 | 0.0135 | 1.20\% | 1.01\% | 161.1 | 135.6 | 112\% | 133\% |
| 17 | 139 | 11,643 | 0.0119 | 1.15\% | 0.82\% | 133.9 | 95.5 | 104\% | 146\% |
| 18 | 122 | 12,156 | 0.0100 | 1.10\% | 0.66\% | 133.7 | 80.2 | 91\% | 152\% |
| 19 | 97 | 10,513 | 0.0092 | 1.05\% | 0.53\% | 110.4 | 55.7 | 88\% | 174\% |
| 20 | 95 | 10,666 | 0.0089 | 1.00\% | 0.44\% | 106.7 | 46.9 | 89\% | 202\% |
| 21 | 68 | 8,988 | 0.0076 | 0.90\% | 0.39\% | 80.9 | 35.1 | 84\% | 194\% |
| 22 | 58 | 9,065 | 0.0064 | 0.80\% | 0.37\% | 72.5 | 33.5 | 80\% | 173\% |
| 23 | 30 | 6,346 | 0.0047 | 0.70\% | 0.37\% | 44.4 | 23.5 | 68\% | 128\% |
| 24 | 38 | 5,895 | 0.0064 | 0.60\% | 0.37\% | 35.4 | 21.8 | 107\% | 174\% |
| 25 | 29 | 4,623 | 0.0063 | 0.50\% | 0.37\% | 23.1 | 17.1 | 125\% | 170\% |
| 26 | 24 | 4,169 | 0.0058 | 0.50\% | 0.37\% | 20.8 | 15.4 | 115\% | 156\% |
| 27 | 16 | 3,030 | 0.0053 | 0.50\% | 0.37\% | 15.2 | 11.2 | 106\% | 143\% |
| 28 | 20 | 2,693 | 0.0074 | 0.50\% | 0.37\% | 13.5 | 10.0 | 149\% | 201\% |
| 29 | 18 | 1,995 | 0.0090 | 0.50\% | 0.37\% | 10.0 | 7.4 | 180\% | 244\% |
| 30 | 13 | 1,673 | 0.0078 | 0.50\% | 0.37\% | 8.4 | 6.2 | 155\% | 210\% |
| Total | 36,285 | 682,474 | 0.0532 |  |  | 28,879.3 | 32,470.2 | 126\% | 112\% |
| 31 or more | 12 | 1,305 | 0.0092 | 0.50\% | 0.37\% | 6.5 | 4.8 | 184\% | 249\% |
| Total | 36,297 | 683,779 | 0.0531 |  |  | 28,885.8 | 32,475.0 | 126\% | 112\% |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS

MEN AND WOMEN

| Plan <br> Year <br> Ending <br> June 30, | TABLE 3B <br> Life Years Exposed | Actual Withdrawals | Expected Withdrawals | 10-YEAR PERIOD ENDING 6/30/2013 Withdrawal Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual/ Expected | $\begin{aligned} & \hline \text { Actual } \\ & \text { (3) / (2) } \\ & \hline \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 76,053 | 3,372 | 3,128.9 | 108\% | 4.43\% | 4.11\% |
| 2005 | 85,338 | 5,760 | 3,900.4 | 148\% | 6.75\% | 4.57\% |
| 2006 | 85,831 | 3,971 | 3,815.0 | 104\% | 4.63\% | 4.44\% |
| 2007 | 89,380 | 6,360 | 3,974.4 | 160\% | 7.12\% | 4.45\% |
| 2008 | 87,060 | 5,557 | 3,694.2 | 150\% | 6.38\% | 4.24\% |
| 2009 | 87,959 | 4,295 | 3,766.3 | 114\% | 4.88\% | 4.28\% |
| 2010 | 87,708 | 3,411 | 3,625.2 | 94\% | 3.89\% | 4.13\% |
| 2011 | 84,450 | 3,571 | 3,343.5 | 107\% | 4.23\% | 3.96\% |
| 2012 | 82,875 | 1,262 | 3,182.6 | 40\% | 1.52\% | 3.84\% |
| 2013 | 85,332 | 1,297 | 3,229.9 | 40\% | 1.52\% | 3.79\% |
| Total | 851,986 | 38,856 | 35,660.4 | 109\% | 4.56\% | 4.19\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY TOTAL-MEN

|  | TABLE 4A |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 103 | 584 | 0.1764 | 27.05\% | 30.00\% | 158.0 | 175.2 | 65\% | 59\% |
| 56 | 43 | 144 | 0.2986 | 26.18\% | 30.00\% | 37.7 | 43.2 | 114\% | 100\% |
| 57 | 37 | 122 | 0.3033 | 27.38\% | 30.00\% | 33.4 | 36.6 | 111\% | 101\% |
| 58 | 37 | 105 | 0.3524 | 27.33\% | 30.00\% | 28.7 | 31.5 | 129\% | 117\% |
| 59 | 23 | 82 | 0.2805 | 28.05\% | 30.00\% | 23.0 | 24.6 | 100\% | 93\% |
| 60 | 32 | 100 | 0.3200 | 28.50\% | 30.00\% | 28.5 | 30.0 | 112\% | 107\% |
| 61 | 34 | 65 | 0.5231 | 25.69\% | 47.08\% | 16.7 | 30.6 | 204\% | 111\% |
| 62 | 162 | 1,248 | 0.1298 | 30.18\% | 30.74\% | 376.7 | 383.6 | 43\% | 42\% |
| 63 | 15 | 41 | 0.3659 | 21.22\% | 30.49\% | 8.7 | 12.5 | 172\% | 120\% |
| 64 | 3 | 33 | 0.0909 | 20.00\% | 25.00\% | 6.6 | 8.3 | 45\% | 36\% |
| 65 | 3 | 18 | 0.1667 | 30.00\% | 25.00\% | 5.4 | 4.5 | 56\% | 67\% |
| 66 | 6 | 14 | 0.4286 | 20.00\% | 30.00\% | 2.8 | 4.2 | 214\% | 143\% |
| 67 | 5 | 15 | 0.3333 | 20.00\% | 30.00\% | 3.0 | 4.5 | 167\% | 111\% |
| 68 | 1 | 9 | 0.1111 | 20.00\% | 30.00\% | 1.8 | 2.7 | 56\% | 37\% |
| 69 | 2 | 9 | 0.2222 | 20.00\% | 30.00\% | 1.8 | 2.7 | 111\% | 74\% |
| 70 | 0 | 9 | 0.0000 | 100.00\% | 100.00\% | 9.0 | 9.0 | 0\% | 0\% |
| Subtotal | 506 | 2,598 |  |  |  | 741.8 | 803.7 | 68\% | 63\% |
| Other | 2 | 12 | 0.1667 | 100.00\% | 100.00\% | 12.0 | 12.0 | 17\% | 17\% |
| Total | 508 | 2,610 |  |  |  | 753.8 | 815.7 | 67\% | 62\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY TOTAL- WOMEN

|  | TABLE 4B |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013$\qquad$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | Proposed $\text { (3) } \times(6)$ | Expected $\text { (2) } /(7)$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 295 | 1,879 | 0.1570 | 27.49\% | 26.26\% | 516.5 | 493.4 | 57\% | 60\% |
| 56 | 121 | 425 | 0.2847 | 27.76\% | 26.12\% | 118.0 | 111.0 | 103\% | 109\% |
| 57 | 99 | 392 | 0.2526 | 28.70\% | 25.65\% | 112.5 | 100.6 | 88\% | 98\% |
| 58 | 104 | 424 | 0.2453 | 28.40\% | 24.20\% | 120.4 | 102.6 | 86\% | 101\% |
| 59 | 130 | 403 | 0.3226 | 28.59\% | 32.88\% | 115.2 | 132.5 | 113\% | 98\% |
| 60 | 115 | 345 | 0.3333 | 28.58\% | 33.58\% | 98.6 | 115.9 | 117\% | 99\% |
| 61 | 133 | 317 | 0.4196 | 27.51\% | 40.02\% | 87.2 | 126.9 | 153\% | 105\% |
| 62 | 506 | 4,466 | 0.1133 | 30.21\% | 35.73\% | 1,349.1 | 1,595.7 | 38\% | 32\% |
| 63 | 20 | 103 | 0.1942 | 21.75\% | 28.74\% | 22.4 | 29.6 | 89\% | 68\% |
| 64 | 15 | 88 | 0.1705 | 20.34\% | 21.70\% | 17.9 | 19.1 | 84\% | 79\% |
| 65 | 15 | 78 | 0.1923 | 30.26\% | 31.03\% | 23.6 | 24.2 | 64\% | 62\% |
| 66 | 14 | 55 | 0.2545 | 20.00\% | 30.00\% | 11.0 | 16.5 | 127\% | 85\% |
| 67 | 9 | 32 | 0.2813 | 20.00\% | 30.00\% | 6.4 | 9.6 | 141\% | 94\% |
| 68 | 5 | 24 | 0.2083 | 20.00\% | 30.00\% | 4.8 | 7.2 | 104\% | 69\% |
| 69 | 3 | 18 | 0.1667 | 20.00\% | 30.00\% | 3.6 | 5.4 | 83\% | 56\% |
| 70 | 5 | 35 | 0.1429 | 100.00\% | 100.00\% | 35.0 | 35.0 | 14\% | 14\% |
| Subtotal | 1,589 | 9,084 |  |  |  | 2,642.2 | 2,925.0 | 60\% | 54\% |
| Other | 1 | 25 | 0.0400 | 100.00\% | 100.00\% | 25.0 | 25.0 | 4\% | 4\% |
| Total | 1,590 | 9,109 |  |  |  | 2,667.2 | 2,950.0 | 60\% | 54\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY

MEN - ELECTED RETIREMENT BENEFIT


TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY

WOMEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 4D |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements <br> Actual/ Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2)/(3) } \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | Proposed $\text { (3) } \times(6)$ | Expected $(2) /(7)$ | Proposed $(\mathbf{2}) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 212 | 1,407 | 0.1507 | 30.00\% | 25.00\% | 422.1 | 351.8 | 50\% | 60\% |
| 56 | 83 | 330 | 0.2515 | 30.00\% | 25.00\% | 99.0 | 82.5 | 84\% | 101\% |
| 57 | 81 | 341 | 0.2375 | 30.00\% | 25.00\% | 102.3 | 85.3 | 79\% | 95\% |
| 58 | 92 | 356 | 0.2584 | 30.00\% | 25.00\% | 106.8 | 89.0 | 86\% | 103\% |
| 59 | 121 | 346 | 0.3497 | 30.00\% | 35.00\% | 103.8 | 121.1 | 117\% | 100\% |
| 60 | 105 | 296 | 0.3547 | 30.00\% | 35.00\% | 88.8 | 103.6 | 118\% | 101\% |
| 61 | 102 | 238 | 0.4286 | 30.00\% | 45.00\% | 71.4 | 107.1 | 143\% | 95\% |
| 62 | 64 | 93 | 0.6882 | 40.00\% | 70.00\% | 37.2 | 65.1 | 172\% | 98\% |
| 63 | 11 | 18 | 0.6111 | 30.00\% | 70.00\% | 5.4 | 12.6 | 204\% | 87\% |
| 64 | 0 | 3 | 0.0000 | 30.00\% | 70.00\% | 0.9 | 2.1 | 0\% | 0\% |
| 65 | 0 | 2 | 0.0000 | 40.00\% | 70.00\% | 0.8 | 1.4 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 30.00\% | 70.00\% | - | - | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 30.00\% | 70.00\% | - | - | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 30.00\% | 70.00\% | - | - | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 30.00\% | 70.00\% | - | - | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 100.00\% | - | - | 0\% | 0\% |
| Subtotal | 871 | 3,430 |  |  |  | 1,038.5 | 1,021.5 | 84\% | 85\% |
| Other | 0 | 0 | N/A | 100.00\% | 100.00\% | - | - | 0\% | 0\% |
| Total | 871 | 3,430 |  |  |  | 1,038.5 | 1,021.5 | 84\% | 85\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY MEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 4E |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed |  | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ (3) \times(6) \\ \hline \end{gathered}$ | Expected $(2) /(7)$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 29 | 172 | 0.1686 | 20.00\% | 30.00\% | 34.4 | 51.6 | 84\% | 56\% |
| 56 | 17 | 55 | 0.3091 | 20.00\% | 30.00\% | 11.0 | 16.5 | 155\% | 103\% |
| 57 | 11 | 32 | 0.3438 | 20.00\% | 30.00\% | 6.4 | 9.6 | 172\% | 115\% |
| 58 | 10 | 28 | 0.3571 | 20.00\% | 30.00\% | 5.6 | 8.4 | 179\% | 119\% |
| 59 | 5 | 16 | 0.3125 | 20.00\% | 30.00\% | 3.2 | 4.8 | 156\% | 104\% |
| 60 | 3 | 15 | 0.2000 | 20.00\% | 30.00\% | 3.0 | 4.5 | 100\% | 67\% |
| 61 | 12 | 28 | 0.4286 | 20.00\% | 30.00\% | 5.6 | 8.4 | 214\% | 143\% |
| 62 | 142 | 1,225 | 0.1159 | 30.00\% | 30.00\% | 367.5 | 367.5 | 39\% | 39\% |
| 63 | 10 | 36 | 0.2778 | 20.00\% | 25.00\% | 7.2 | 9.0 | 139\% | 111\% |
| 64 | 3 | 33 | 0.0909 | 20.00\% | 25.00\% | 6.6 | 8.3 | 45\% | 36\% |
| 65 | 3 | 18 | 0.1667 | 30.00\% | 25.00\% | 5.4 | 4.5 | 56\% | 67\% |
| 66 | 6 | 14 | 0.4286 | 20.00\% | 30.00\% | 2.8 | 4.2 | 214\% | 143\% |
| 67 | 5 | 15 | 0.3333 | 20.00\% | 30.00\% | 3.0 | 4.5 | 167\% | 111\% |
| 68 | 1 | 9 | 0.1111 | 20.00\% | 30.00\% | 1.8 | 2.7 | 56\% | 37\% |
| 69 | 2 | 9 | 0.2222 | 20.00\% | 30.00\% | 1.8 | 2.7 | 111\% | 74\% |
| 70 | 0 | 9 | 0.0000 | 100.00\% | 100.00\% | 9.0 | 9.0 | 0\% | 0\% |
| Subtotal | 259 | 1,714 |  |  |  | 474.3 | 516.2 | 55\% | 50\% |
| Other | 2 | 12 | 0.1667 | 100.00\% | 100.00\% | 12.0 | 12.0 | 17\% | 17\% |
| Total | 261 | 1,726 |  |  |  | 486.3 | 528.2 | 54\% | 49\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY
WOMEN - MANDATED RETIREMENT BENEFIT

| Age | TABLE 4F |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements Actual/ Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Retirements | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 83 | 472 | 0.1758 | 20.00\% | 30.00\% | 94.4 | 141.6 | 88\% | 59\% |
| 56 | 38 | 95 | 0.4000 | 20.00\% | 30.00\% | 19.0 | 28.5 | 200\% | 133\% |
| 57 | 18 | 51 | 0.3529 | 20.00\% | 30.00\% | 10.2 | 15.3 | 176\% | 118\% |
| 58 | 12 | 68 | 0.1765 | 20.00\% | 20.00\% | 13.6 | 13.6 | 88\% | 88\% |
| 59 | 9 | 57 | 0.1579 | 20.00\% | 20.00\% | 11.4 | 11.4 | 79\% | 79\% |
| 60 | 10 | 49 | 0.2041 | 20.00\% | 25.00\% | 9.8 | 12.3 | 102\% | 82\% |
| 61 | 31 | 79 | 0.3924 | 20.00\% | 25.00\% | 15.8 | 19.8 | 196\% | 157\% |
| 62 | 442 | 4,373 | 0.1011 | 30.00\% | 35.00\% | 1,311.9 | 1,530.6 | 34\% | 29\% |
| 63 | 9 | 85 | 0.1059 | 20.00\% | 20.00\% | 17.0 | 17.0 | 53\% | 53\% |
| 64 | 15 | 85 | 0.1765 | 20.00\% | 20.00\% | 17.0 | 17.0 | 88\% | 88\% |
| 65 | 15 | 76 | 0.1974 | 30.00\% | 30.00\% | 22.8 | 22.8 | 66\% | 66\% |
| 66 | 14 | 55 | 0.2545 | 20.00\% | 30.00\% | 11.0 | 16.5 | 127\% | 85\% |
| 67 | 9 | 32 | 0.2813 | 20.00\% | 30.00\% | 6.4 | 9.6 | 141\% | 94\% |
| 68 | 5 | 24 | 0.2083 | 20.00\% | 30.00\% | 4.8 | 7.2 | 104\% | 69\% |
| 69 | 3 | 18 | 0.1667 | 20.00\% | 30.00\% | 3.6 | 5.4 | 83\% | 56\% |
| 70 | 5 | 35 | 0.1429 | 100.00\% | 100.00\% | 35.0 | 35.0 | 14\% | 14\% |
| Subtotal | 718 | 5,654 |  |  |  | 1,603.7 | 1,903.5 | 45\% | 38\% |
| Other | 1 | 25 | 0.0400 | 100.00\% | 100.00\% | 25.0 | 25.0 | 4\% | 4\% |
| Total | 719 | 5,679 |  |  |  | 1,628.7 | 1,928.5 | 44\% | 37\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY TOTAL-MEN

|  | TABLE 4A |  |  | Assumed | bability | 10-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed |  | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ \text { (3) } \times(6) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 3 | 3 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 940 | 2,409 | 0.3902 | 22.38\% | 30.00\% | 539.2 | 722.7 | 174\% | 130\% |
| 56 | 77 | 309 | 0.2492 | 24.27\% | 30.00\% | 75.0 | 92.7 | 103\% | 83\% |
| 57 | 63 | 234 | 0.2692 | 25.60\% | 30.00\% | 59.9 | 70.2 | 105\% | 90\% |
| 58 | 56 | 210 | 0.2667 | 25.00\% | 30.00\% | 52.5 | 63.0 | 107\% | 89\% |
| 59 | 38 | 164 | 0.2317 | 25.55\% | 30.00\% | 41.9 | 49.2 | 91\% | 77\% |
| 60 | 41 | 159 | 0.2579 | 26.48\% | 30.00\% | 42.1 | 47.7 | 97\% | 86\% |
| 61 | 47 | 100 | 0.4700 | 24.40\% | 43.20\% | 24.4 | 43.2 | 193\% | 109\% |
| 62 | 338 | 2,350 | 0.1438 | 30.10\% | 30.41\% | 707.4 | 714.6 | 48\% | 47\% |
| 63 | 23 | 98 | 0.2347 | 20.61\% | 27.76\% | 20.2 | 27.2 | 114\% | 85\% |
| 64 | 4 | 69 | 0.0580 | 20.00\% | 25.00\% | 13.8 | 17.3 | 29\% | 23\% |
| 65 | 5 | 51 | 0.0980 | 30.00\% | 25.00\% | 15.3 | 12.8 | 33\% | 39\% |
| 66 | 8 | 41 | 0.1951 | 20.00\% | 30.00\% | 8.2 | 12.3 | 98\% | 65\% |
| 67 | 9 | 32 | 0.2813 | 20.00\% | 30.00\% | 6.4 | 9.6 | 141\% | 94\% |
| 68 | 4 | 24 | 0.1667 | 20.00\% | 30.00\% | 4.8 | 7.2 | 83\% | 56\% |
| 69 | 4 | 17 | 0.2353 | 20.00\% | 30.00\% | 3.4 | 5.1 | 118\% | 78\% |
| 70 | 3 | 21 | 0.1429 | 100.00\% | 100.00\% | 21.0 | 21.0 | 14\% | 14\% |
| Subtotal | 1,663 | 6,291 |  |  |  | 1,635.5 | 1,915.7 | 102\% | 87\% |
| Other | 6 | 31 | 0.1935 | 100.00\% | 100.00\% | 31.0 | 31.0 | 19\% | 19\% |
| Total | 1,669 | 6,322 |  |  |  | 1,666.5 | 1,946.7 | 100\% | 86\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY TOTAL- WOMEN

|  | TABLE 4B |  |  | Assumed | bability | 10-YEAR PERIOD ENDING 6/30/2013Expected Retirements Actual/ Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ \text { (3) } \times(5) \\ \hline \end{gathered}$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | $\begin{gathered} \text { Proposed } \\ (2) /(\mathbf{8}) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 5 | 5 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 1,933 | 6,266 | 0.3085 | 23.14\% | 28.43\% | 1,450.1 | 1,781.4 | 133\% | 109\% |
| 56 | 201 | 863 | 0.2329 | 25.75\% | 27.13\% | 222.2 | 234.1 | 90\% | 86\% |
| 57 | 161 | 825 | 0.1952 | 26.07\% | 26.96\% | 215.1 | 222.5 | 75\% | 72\% |
| 58 | 155 | 768 | 0.2018 | 26.35\% | 23.18\% | 202.4 | 178.0 | 77\% | 87\% |
| 59 | 190 | 699 | 0.2718 | 26.41\% | 29.61\% | 184.6 | 207.0 | 103\% | 92\% |
| 60 | 164 | 554 | 0.2960 | 26.17\% | 31.17\% | 145.0 | 172.7 | 113\% | 95\% |
| 61 | 183 | 511 | 0.3581 | 25.19\% | 35.37\% | 128.7 | 180.8 | 142\% | 101\% |
| 62 | 1,324 | 9,227 | 0.1435 | 30.11\% | 35.39\% | 2,778.5 | 3,265.9 | 48\% | 41\% |
| 63 | 47 | 249 | 0.1888 | 20.76\% | 23.82\% | 51.7 | 59.3 | 91\% | 79\% |
| 64 | 32 | 204 | 0.1569 | 20.20\% | 20.98\% | 41.2 | 42.8 | 78\% | 75\% |
| 65 | 35 | 167 | 0.2096 | 30.12\% | 30.48\% | 50.3 | 50.9 | 70\% | 69\% |
| 66 | 28 | 118 | 0.2373 | 20.00\% | 30.00\% | 23.6 | 35.4 | 119\% | 79\% |
| 67 | 20 | 77 | 0.2597 | 20.00\% | 30.00\% | 15.4 | 23.1 | 130\% | 87\% |
| 68 | 9 | 50 | 0.1800 | 20.00\% | 30.00\% | 10.0 | 15.0 | 90\% | 60\% |
| 69 | 3 | 32 | 0.0938 | 20.00\% | 30.00\% | 6.4 | 9.6 | 47\% | 31\% |
| 70 | 9 | 65 | 0.1385 | 100.00\% | 100.00\% | 65.0 | 65.0 | 14\% | 14\% |
| Subtotal | 4,499 | 20,680 |  |  |  | 5,590.2 | 6,543.3 | 80\% | 69\% |
| Other | 6 | 46 | 0.1304 | 100.00\% | 100.00\% | 46.0 | 46.0 | 13\% | 13\% |
| Total | 4,505 | 20,726 |  |  |  | 5,636.2 | 6,589.3 | 80\% | 68\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY

MEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 4C |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements <br> Actual/ Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 3 | 3 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 73 | 574 | 0.1272 | 30.00\% | 30.00\% | 172.2 | 172.2 | 42\% | 42\% |
| 56 | 28 | 132 | 0.2121 | 30.00\% | 30.00\% | 39.6 | 39.6 | 71\% | 71\% |
| 57 | 27 | 131 | 0.2061 | 30.00\% | 30.00\% | 39.3 | 39.3 | 69\% | 69\% |
| 58 | 27 | 105 | 0.2571 | 30.00\% | 30.00\% | 31.5 | 31.5 | 86\% | 86\% |
| 59 | 19 | 91 | 0.2088 | 30.00\% | 30.00\% | 27.3 | 27.3 | 70\% | 70\% |
| 60 | 29 | 103 | 0.2816 | 30.00\% | 30.00\% | 30.9 | 30.9 | 94\% | 94\% |
| 61 | 23 | 44 | 0.5227 | 30.00\% | 60.00\% | 13.2 | 26.4 | 174\% | 87\% |
| 62 | 20 | 24 | 0.8333 | 40.00\% | 70.00\% | 9.6 | 16.8 | 208\% | 119\% |
| 63 | 6 | 6 | 1.0000 | 30.00\% | 70.00\% | 1.8 | 4.2 | 333\% | 143\% |
| 64 | 0 | 0 | N/A | 30.00\% | 70.00\% | - | - | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 40.00\% | 70.00\% | - | - | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 30.00\% | 70.00\% | - | - | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 30.00\% | 70.00\% | - | - | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 30.00\% | 70.00\% | - | - | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 30.00\% | 70.00\% | - | - | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 100.00\% | - | - | 0\% | 0\% |
| Subtotal | 255 | 1,213 |  |  |  | 365.4 | 388.2 | 70\% | 66\% |
| Other | 0 | 0 | N/A | 100.00\% | 100.00\% | - | - | 0\% | 0\% |
| Total | 255 | 1,213 |  |  |  | 365.4 | 388.2 | 70\% | 66\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY WOMEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 4D |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements Actual/ Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 4 | 4 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 210 | 1,969 | 0.1067 | 30.00\% | 25.00\% | 590.7 | 492.3 | 36\% | 43\% |
| 56 | 85 | 496 | 0.1714 | 30.00\% | 25.00\% | 148.8 | 124.0 | 57\% | 69\% |
| 57 | 82 | 501 | 0.1637 | 30.00\% | 25.00\% | 150.3 | 125.3 | 55\% | 65\% |
| 58 | 92 | 488 | 0.1885 | 30.00\% | 25.00\% | 146.4 | 122.0 | 63\% | 75\% |
| 59 | 121 | 448 | 0.2701 | 30.00\% | 35.00\% | 134.4 | 156.8 | 90\% | 77\% |
| 60 | 107 | 342 | 0.3129 | 30.00\% | 35.00\% | 102.6 | 119.7 | 104\% | 89\% |
| 61 | 102 | 265 | 0.3849 | 30.00\% | 45.00\% | 79.5 | 119.3 | 128\% | 86\% |
| 62 | 65 | 104 | 0.6250 | 40.00\% | 70.00\% | 41.6 | 72.8 | 156\% | 89\% |
| 63 | 11 | 19 | 0.5789 | 30.00\% | 70.00\% | 5.7 | 13.3 | 193\% | 83\% |
| 64 | 0 | 4 | 0.0000 | 30.00\% | 70.00\% | 1.2 | 2.8 | 0\% | 0\% |
| 65 | 0 | 2 | 0.0000 | 40.00\% | 70.00\% | 0.8 | 1.4 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 30.00\% | 70.00\% | - | - | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 30.00\% | 70.00\% | - | - | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 30.00\% | 70.00\% | - | - | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 30.00\% | 70.00\% | - | - | 0\% | 0\% |
| 70 | 0 | 2 | 0.0000 | 100.00\% | 100.00\% | 2.0 | 2.0 | 0\% | 0\% |
| Subtotal | 879 | 4,644 |  |  |  | 1,404.0 | 1,351.6 | 63\% | 65\% |
| Other | 0 | 1 | 0.0000 | 100.00\% | 100.00\% | 1.0 | 1.0 | 0\% | 0\% |
| Total | 879 | 4,645 |  |  |  | 1,405.0 | 1,352.6 | 63\% | 65\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY MEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 4E |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013Expected Retirements Actual/ Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ (3) \times(6) \\ \hline \end{gathered}$ | Expected $(2) /(7)$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 867 | 1,835 | 0.4725 | 20.00\% | 30.00\% | 367.0 | 550.5 | 236\% | 157\% |
| 56 | 49 | 177 | 0.2768 | 20.00\% | 30.00\% | 35.4 | 53.1 | 138\% | 92\% |
| 57 | 36 | 103 | 0.3495 | 20.00\% | 30.00\% | 20.6 | 30.9 | 175\% | 117\% |
| 58 | 29 | 105 | 0.2762 | 20.00\% | 30.00\% | 21.0 | 31.5 | 138\% | 92\% |
| 59 | 19 | 73 | 0.2603 | 20.00\% | 30.00\% | 14.6 | 21.9 | 130\% | 87\% |
| 60 | 12 | 56 | 0.2143 | 20.00\% | 30.00\% | 11.2 | 16.8 | 107\% | 71\% |
| 61 | 24 | 56 | 0.4286 | 20.00\% | 30.00\% | 11.2 | 16.8 | 214\% | 143\% |
| 62 | 318 | 2,326 | 0.1367 | 30.00\% | 30.00\% | 697.8 | 697.8 | 46\% | 46\% |
| 63 | 17 | 92 | 0.1848 | 20.00\% | 25.00\% | 18.4 | 23.0 | 92\% | 74\% |
| 64 | 4 | 69 | 0.0580 | 20.00\% | 25.00\% | 13.8 | 17.3 | 29\% | 23\% |
| 65 | 5 | 51 | 0.0980 | 30.00\% | 25.00\% | 15.3 | 12.8 | 33\% | 39\% |
| 66 | 8 | 41 | 0.1951 | 20.00\% | 30.00\% | 8.2 | 12.3 | 98\% | 65\% |
| 67 | 9 | 32 | 0.2813 | 20.00\% | 30.00\% | 6.4 | 9.6 | 141\% | 94\% |
| 68 | 4 | 24 | 0.1667 | 20.00\% | 30.00\% | 4.8 | 7.2 | 83\% | 56\% |
| 69 | 4 | 17 | 0.2353 | 20.00\% | 30.00\% | 3.4 | 5.1 | 118\% | 78\% |
| 70 | 3 | 21 | 0.1429 | 100.00\% | 100.00\% | 21.0 | 21.0 | 14\% | 14\% |
| Subtotal | 1,408 | 5,078 |  |  |  | 1,270.1 | 1,527.5 | 111\% | 92\% |
| Other | 6 | 31 | 0.1935 | 100.00\% | 100.00\% | 31.0 | 31.0 | 19\% | 19\% |
| Total | 1,414 | 5,109 |  |  |  | 1,301.1 | 1,558.5 | 109\% | 91\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY
WOMEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 4F |  |  | Assumed | bability | 10-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | Actual Rate (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 1 | 1 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 1,723 | 4,297 | 0.4010 | 20.00\% | 30.00\% | 859.4 | 1,289.1 | 200\% | 134\% |
| 56 | 116 | 367 | 0.3161 | 20.00\% | 30.00\% | 73.4 | 110.1 | 158\% | 105\% |
| 57 | 79 | 324 | 0.2438 | 20.00\% | 30.00\% | 64.8 | 97.2 | 122\% | 81\% |
| 58 | 63 | 280 | 0.2250 | 20.00\% | 20.00\% | 56.0 | 56.0 | 113\% | 113\% |
| 59 | 69 | 251 | 0.2749 | 20.00\% | 20.00\% | 50.2 | 50.2 | 137\% | 137\% |
| 60 | 57 | 212 | 0.2689 | 20.00\% | 25.00\% | 42.4 | 53.0 | 134\% | 108\% |
| 61 | 81 | 246 | 0.3293 | 20.00\% | 25.00\% | 49.2 | 61.5 | 165\% | 132\% |
| 62 | 1,259 | 9,123 | 0.1380 | 30.00\% | 35.00\% | 2,736.9 | 3,193.1 | 46\% | 39\% |
| 63 | 36 | 230 | 0.1565 | 20.00\% | 20.00\% | 46.0 | 46.0 | 78\% | 78\% |
| 64 | 32 | 200 | 0.1600 | 20.00\% | 20.00\% | 40.0 | 40.0 | 80\% | 80\% |
| 65 | 35 | 165 | 0.2121 | 30.00\% | 30.00\% | 49.5 | 49.5 | 71\% | 71\% |
| 66 | 28 | 118 | 0.2373 | 20.00\% | 30.00\% | 23.6 | 35.4 | 119\% | 79\% |
| 67 | 20 | 77 | 0.2597 | 20.00\% | 30.00\% | 15.4 | 23.1 | 130\% | 87\% |
| 68 | 9 | 50 | 0.1800 | 20.00\% | 30.00\% | 10.0 | 15.0 | 90\% | 60\% |
| 69 | 3 | 32 | 0.0938 | 20.00\% | 30.00\% | 6.4 | 9.6 | 47\% | 31\% |
| 70 | 9 | 63 | 0.1429 | 100.00\% | 100.00\% | 63.0 | 63.0 | 14\% | 14\% |
| Subtotal | 3,620 | 16,036 |  |  |  | 4,186.2 | 5,191.8 | 86\% | 70\% |
| Other | 6 | 45 | 0.1333 | 100.00\% | 100.00\% | 45.0 | 45.0 | 13\% | 13\% |
| Total | 3,626 | 16,081 |  |  |  | 4,231.2 | 5,236.8 | 86\% | 69\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY TOTAL - MEN

|  | TABLE 5A |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements Actual/ Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | Proposed $\text { (3) } \times(6)$ | Expected $\text { (2) } /(7)$ | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 56 | 113 | 498 | 0.2269 | 18.30\% | 20.66\% | 91.2 | 102.9 | 124\% | 110\% |
| 57 | 126 | 116 | 1.0862 | 17.50\% | 18.00\% | 20.3 | 20.9 | 621\% | 603\% |
| 58 | 22 | 110 | 0.2000 | 18.41\% | 20.68\% | 20.3 | 22.8 | 109\% | 97\% |
| 59 | 17 | 89 | 0.1910 | 18.09\% | 18.71\% | 16.1 | 16.7 | 106\% | 102\% |
| 60 | 19 | 79 | 0.2405 | 18.16\% | 18.80\% | 14.4 | 14.9 | 132\% | 128\% |
| 61 | 21 | 66 | 0.3182 | 19.02\% | 19.82\% | 12.6 | 13.1 | 167\% | 161\% |
| 62 | 23 | 45 | 0.5111 | 23.56\% | 20.87\% | 10.6 | 9.4 | 217\% | 245\% |
| 63 | 161 | 1,028 | 0.1566 | 15.03\% | 44.84\% | 154.6 | 460.9 | 104\% | 35\% |
| 64 | 5 | 31 | 0.1613 | 15.00\% | 20.00\% | 4.7 | 6.2 | 108\% | 81\% |
| 65 | 5 | 24 | 0.2083 | 20.00\% | 20.00\% | 4.8 | 4.8 | 104\% | 104\% |
| 66 | 5 | 21 | 0.2381 | 15.00\% | 20.00\% | 3.2 | 4.2 | 159\% | 119\% |
| 67 | 4 | 16 | 0.2500 | 15.00\% | 20.00\% | 2.4 | 3.2 | 167\% | 125\% |
| 68 | 2 | 13 | 0.1538 | 15.00\% | 20.00\% | 2.0 | 2.6 | 103\% | 77\% |
| 69 | 0 | 4 | 0.0000 | 15.00\% | 20.00\% | 0.6 | 0.8 | 0\% | 0\% |
| 70 | 3 | 7 | 0.4286 | 100.00\% | 100.00\% | 7.0 | 7.0 | 43\% | 43\% |
| Subtotal | 526 | 2,147 |  |  |  | 364.4 | 690.2 | 144\% | 76\% |
| Other | 3 | 30 | 0.1000 | 100.00\% | 100.00\% | 30.0 | 30.0 | 10\% | 10\% |
| Total | 529 | 2,177 |  |  |  | 394.4 | 720.2 | 134\% | 73\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY TOTAL- WOMEN

|  | TABLE 5B |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 56 | 398 | 1,572 | 0.2532 | 18.67\% | 22.06\% | 293.6 | 346.8 | 136\% | 115\% |
| 57 | 46 | 321 | 0.1433 | 18.80\% | 21.96\% | 60.4 | 70.5 | 76\% | 65\% |
| 58 | 63 | 328 | 0.1921 | 19.01\% | 19.81\% | 62.4 | 65.0 | 101\% | 97\% |
| 59 | 57 | 295 | 0.1932 | 19.07\% | 19.88\% | 56.3 | 58.7 | 101\% | 97\% |
| 60 | 57 | 285 | 0.2000 | 18.79\% | 19.55\% | 53.6 | 55.7 | 106\% | 102\% |
| 61 | 60 | 236 | 0.2542 | 18.96\% | 19.75\% | 44.8 | 46.6 | 134\% | 129\% |
| 62 | 140 | 275 | 0.5091 | 24.55\% | 22.50\% | 67.5 | 61.9 | 207\% | 226\% |
| 63 | 643 | 3,849 | 0.1671 | 15.05\% | 39.82\% | 579.2 | 1,532.6 | 111\% | 42\% |
| 64 | 20 | 81 | 0.2469 | 15.49\% | 20.10\% | 12.6 | 16.3 | 159\% | 123\% |
| 65 | 16 | 75 | 0.2133 | 20.27\% | 20.31\% | 15.2 | 15.2 | 105\% | 105\% |
| 66 | 8 | 53 | 0.1509 | 15.00\% | 20.00\% | 8.0 | 10.6 | 101\% | 75\% |
| 67 | 9 | 47 | 0.1915 | 15.00\% | 20.00\% | 7.1 | 9.4 | 128\% | 96\% |
| 68 | 9 | 31 | 0.2903 | 15.00\% | 20.00\% | 4.7 | 6.2 | 194\% | 145\% |
| 69 | 7 | 17 | 0.4118 | 15.00\% | 20.00\% | 2.6 | 3.4 | 275\% | 206\% |
| 70 | 4 | 11 | 0.3636 | 100.00\% | 100.00\% | 11.0 | 11.0 | 36\% | 36\% |
| Subtotal | 1,537 | 7,476 |  |  |  | 1,278.5 | 2,309.8 | 120\% | 67\% |
| Other | 7 | 34 | 0.2059 | 100.00\% | 100.00\% | 34.0 | 34.0 | 21\% | 21\% |
| Total | 1,544 | 7,510 |  |  |  | 1,312.5 | 2,343.8 | 118\% | 66\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY MEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 5C |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } / \text { (3) } \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $\text { (3) } \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected $\text { (2) } /(7)$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 56 | 91 | 329 | 0.2766 | 20.00\% | 21.00\% | 65.8 | 69.1 | 138\% | 132\% |
| 57 | 7 | 58 | 0.1207 | 20.00\% | 21.00\% | 11.6 | 12.2 | 60\% | 57\% |
| 58 | 12 | 75 | 0.1600 | 20.00\% | 21.00\% | 15.0 | 15.8 | 80\% | 76\% |
| 59 | 11 | 55 | 0.2000 | 20.00\% | 21.00\% | 11.0 | 11.6 | 100\% | 95\% |
| 60 | 14 | 50 | 0.2800 | 20.00\% | 21.00\% | 10.0 | 10.5 | 140\% | 133\% |
| 61 | 17 | 53 | 0.3208 | 20.00\% | 21.00\% | 10.6 | 11.1 | 160\% | 153\% |
| 62 | 3 | 16 | 0.1875 | 30.00\% | 31.50\% | 4.8 | 5.0 | 63\% | 60\% |
| 63 | 7 | 7 | 1.0000 | 20.00\% | 21.00\% | 1.4 | 1.5 | 500\% | 476\% |
| 64 | 0 | 0 | N/A | 20.00\% | 21.00\% | - | - | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 30.00\% | 31.50\% | - | - | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 20.00\% | 21.00\% | - | - | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 20.00\% | 21.00\% | - | - | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 20.00\% | 21.00\% | - | - | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 20.00\% | 21.00\% | - | - | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 100.00\% | - | - | 0\% | 0\% |
| Subtotal | 162 | 643 |  |  |  | 130.2 | 136.7 | 124\% | 118\% |
| Other | 0 | 0 | N/A | 100.00\% | 100.00\% | - | - | 0\% | 0\% |
| Total | 162 | 643 |  |  |  | 130.2 | 136.7 | 124\% | 118\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY WOMEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 5D |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements Actual/ Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 56 | 283 | 1,155 | 0.2450 | 20.00\% | 21.00\% | 231.0 | 242.6 | 123\% | 117\% |
| 57 | 29 | 244 | 0.1189 | 20.00\% | 21.00\% | 48.8 | 51.2 | 59\% | 57\% |
| 58 | 54 | 263 | 0.2053 | 20.00\% | 21.00\% | 52.6 | 55.2 | 103\% | 98\% |
| 59 | 50 | 240 | 0.2083 | 20.00\% | 21.00\% | 48.0 | 50.4 | 104\% | 99\% |
| 60 | 40 | 216 | 0.1852 | 20.00\% | 21.00\% | 43.2 | 45.4 | 93\% | 88\% |
| 61 | 53 | 187 | 0.2834 | 20.00\% | 21.00\% | 37.4 | 39.3 | 142\% | 135\% |
| 62 | 44 | 125 | 0.3520 | 30.00\% | 31.50\% | 37.5 | 39.4 | 117\% | 112\% |
| 63 | 22 | 37 | 0.5946 | 20.00\% | 21.00\% | 7.4 | 7.8 | 297\% | 283\% |
| 64 | 4 | 8 | 0.5000 | 20.00\% | 21.00\% | 1.6 | 1.7 | 250\% | 238\% |
| 65 | 0 | 2 | 0.0000 | 30.00\% | 31.50\% | 0.6 | 0.6 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 20.00\% | 21.00\% | - | - | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 20.00\% | 21.00\% | - | - | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 20.00\% | 21.00\% | - | - | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 20.00\% | 21.00\% | - | - | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 100.00\% | - | - | 0\% | 0\% |
| Subtotal | 579 | 2,477 |  |  |  | 508.1 | 533.5 | 114\% | 109\% |
| Other | 0 | 0 | N/A | 100.00\% | 100.00\% | - | - | 0\% | 0\% |
| Total | 579 | 2,477 |  |  |  | 508.1 | 533.5 | 114\% | 109\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY MEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 5E |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013$\qquad$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | Proposed $\text { (3) } \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 56 | 22 | 169 | 0.1302 | 15.00\% | 20.00\% | 25.4 | 33.8 | 87\% | 65\% |
| 57 | 119 | 58 | 2.0517 | 15.00\% | 15.00\% | 8.7 | 8.7 | 1368\% | 1368\% |
| 58 | 10 | 35 | 0.2857 | 15.00\% | 20.00\% | 5.3 | 7.0 | 190\% | 143\% |
| 59 | 6 | 34 | 0.1765 | 15.00\% | 15.00\% | 5.1 | 5.1 | 118\% | 118\% |
| 60 | 5 | 29 | 0.1724 | 15.00\% | 15.00\% | 4.4 | 4.4 | 115\% | 115\% |
| 61 | 4 | 13 | 0.3077 | 15.00\% | 15.00\% | 2.0 | 2.0 | 205\% | 205\% |
| 62 | 20 | 29 | 0.6897 | 20.00\% | 15.00\% | 5.8 | 4.4 | 345\% | 460\% |
| 63 | 154 | 1,021 | 0.1508 | 15.00\% | 45.00\% | 153.2 | 459.5 | 101\% | 34\% |
| 64 | 5 | 31 | 0.1613 | 15.00\% | 20.00\% | 4.7 | 6.2 | 108\% | 81\% |
| 65 | 5 | 24 | 0.2083 | 20.00\% | 20.00\% | 4.8 | 4.8 | 104\% | 104\% |
| 66 | 5 | 21 | 0.2381 | 15.00\% | 20.00\% | 3.2 | 4.2 | 159\% | 119\% |
| 67 | 4 | 16 | 0.2500 | 15.00\% | 20.00\% | 2.4 | 3.2 | 167\% | 125\% |
| 68 | 2 | 13 | 0.1538 | 15.00\% | 20.00\% | 2.0 | 2.6 | 103\% | 77\% |
| 69 | 0 | 4 | 0.0000 | 15.00\% | 20.00\% | 0.6 | 0.8 | 0\% | 0\% |
| 70 | 3 | 7 | 0.4286 | 100.00\% | 100.00\% | 7.0 | 7.0 | 43\% | 43\% |
| Subtotal | 364 | 1,504 |  |  |  | 234.2 | 553.5 | 155\% | 66\% |
| Other | 3 | 30 | 0.1000 | 100.00\% | 100.00\% | 30.0 | 30.0 | 10\% | 10\% |
| Total | 367 | 1,534 |  |  |  | 264.2 | 583.5 | 139\% | 63\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY WOMEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 5F |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013$\qquad$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | Proposed $\text { (3) } \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 56 | 115 | 417 | 0.2758 | 15.00\% | 25.00\% | 62.6 | 104.3 | 184\% | 110\% |
| 57 | 17 | 77 | 0.2208 | 15.00\% | 25.00\% | 11.6 | 19.3 | 147\% | 88\% |
| 58 | 9 | 65 | 0.1385 | 15.00\% | 15.00\% | 9.8 | 9.8 | 92\% | 92\% |
| 59 | 7 | 55 | 0.1273 | 15.00\% | 15.00\% | 8.3 | 8.3 | 85\% | 85\% |
| 60 | 17 | 69 | 0.2464 | 15.00\% | 15.00\% | 10.4 | 10.4 | 164\% | 164\% |
| 61 | 7 | 49 | 0.1429 | 15.00\% | 15.00\% | 7.4 | 7.4 | 95\% | 95\% |
| 62 | 96 | 150 | 0.6400 | 20.00\% | 15.00\% | 30.0 | 22.5 | 320\% | 427\% |
| 63 | 621 | 3,812 | 0.1629 | 15.00\% | 40.00\% | 571.8 | 1,524.8 | 109\% | 41\% |
| 64 | 16 | 73 | 0.2192 | 15.00\% | 20.00\% | 11.0 | 14.6 | 146\% | 110\% |
| 65 | 16 | 73 | 0.2192 | 20.00\% | 20.00\% | 14.6 | 14.6 | 110\% | 110\% |
| 66 | 8 | 53 | 0.1509 | 15.00\% | 20.00\% | 8.0 | 10.6 | 101\% | 75\% |
| 67 | 9 | 47 | 0.1915 | 15.00\% | 20.00\% | 7.1 | 9.4 | 128\% | 96\% |
| 68 | 9 | 31 | 0.2903 | 15.00\% | 20.00\% | 4.7 | 6.2 | 194\% | 145\% |
| 69 | 7 | 17 | 0.4118 | 15.00\% | 20.00\% | 2.6 | 3.4 | 275\% | 206\% |
| 70 | 4 | 11 | 0.3636 | 100.00\% | 100.00\% | 11.0 | 11.0 | 36\% | 36\% |
| Subtotal | 958 | 4,999 |  |  |  | 770.4 | 1,776.3 | 124\% | 54\% |
| Other | 7 | 34 | 0.2059 | 100.00\% | 100.00\% | 34.0 | 34.0 | 21\% | 21\% |
| Total | 965 | 5,033 |  |  |  | 804.4 | 1,810.3 | 120\% | 53\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY TOTAL - MEN

|  | TABLE 5A |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } /(\mathbf{3}) \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ (3) \times(6) \\ \hline \end{gathered}$ | $\begin{aligned} & \text { Expected } \\ & (2) /(7) \\ & \hline \end{aligned}$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 14 | 14 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 56 | 744 | 2,000 | 0.3720 | 16.04\% | 20.66\% | 320.9 | 413.2 | 232\% | 180\% |
| 57 | 35 | 211 | 0.1659 | 17.09\% | 18.00\% | 36.1 | 38.0 | 97\% | 92\% |
| 58 | 41 | 179 | 0.2291 | 17.77\% | 20.68\% | 31.8 | 37.0 | 129\% | 111\% |
| 59 | 32 | 153 | 0.2092 | 17.39\% | 18.71\% | 26.6 | 28.6 | 120\% | 112\% |
| 60 | 26 | 113 | 0.2301 | 17.48\% | 18.80\% | 19.8 | 21.2 | 132\% | 122\% |
| 61 | 28 | 100 | 0.2800 | 17.95\% | 19.82\% | 18.0 | 19.8 | 156\% | 141\% |
| 62 | 28 | 61 | 0.4590 | 22.62\% | 20.87\% | 13.8 | 12.7 | 203\% | 220\% |
| 63 | 271 | 1,836 | 0.1476 | 15.02\% | 44.84\% | 275.8 | 823.2 | 98\% | 33\% |
| 64 | 11 | 73 | 0.1507 | 15.00\% | 20.00\% | 11.0 | 14.6 | 100\% | 75\% |
| 65 | 8 | 53 | 0.1509 | 20.00\% | 20.00\% | 10.6 | 10.6 | 75\% | 75\% |
| 66 | 10 | 45 | 0.2222 | 15.00\% | 20.00\% | 6.8 | 9.0 | 148\% | 111\% |
| 67 | 6 | 35 | 0.1714 | 15.00\% | 20.00\% | 5.3 | 7.0 | 114\% | 86\% |
| 68 | 3 | 19 | 0.1579 | 15.00\% | 20.00\% | 2.9 | 3.8 | 105\% | 79\% |
| 69 | 0 | 13 | 0.0000 | 15.00\% | 20.00\% | 2.0 | 2.6 | 0\% | 0\% |
| 70 | 3 | 15 | 0.2000 | 100.00\% | 100.00\% | 15.0 | 15.0 | 20\% | 20\% |
| Subtotal | 1,260 | 4,920 |  |  |  | 795.9 | 1,456.4 | 158\% | 87\% |
| Other | 6 | 54 | 0.1111 | 100.00\% | 100.00\% | 54.0 | 54.0 | 11\% | 11\% |
| Total | 1,266 | 4,974 |  |  |  | 849.9 | 1,510.4 | 149\% | 84\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY

TOTAL- WOMEN

|  | TABLE 5B |  |  | Assumed | bability | 10-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \quad(2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ (3) \times(6) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 20 | 20 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 56 | 1,501 | 4,989 | 0.3009 | 16.50\% | 22.06\% | 823.4 | 1,100.6 | 182\% | 136\% |
| 57 | 113 | 673 | 0.1679 | 17.71\% | 21.96\% | 119.2 | 147.8 | 95\% | 76\% |
| 58 | 120 | 641 | 0.1872 | 17.74\% | 19.81\% | 113.7 | 127.0 | 106\% | 94\% |
| 59 | 97 | 531 | 0.1827 | 17.92\% | 19.88\% | 95.2 | 105.6 | 102\% | 92\% |
| 60 | 109 | 486 | 0.2243 | 17.59\% | 19.55\% | 85.5 | 95.0 | 127\% | 115\% |
| 61 | 100 | 364 | 0.2747 | 17.71\% | 19.75\% | 64.5 | 71.9 | 155\% | 139\% |
| 62 | 192 | 391 | 0.4910 | 23.20\% | 22.50\% | 90.7 | 88.0 | 212\% | 218\% |
| 63 | 1,198 | 7,303 | 0.1640 | 15.03\% | 39.82\% | 1,097.3 | 2,907.9 | 109\% | 41\% |
| 64 | 38 | 217 | 0.1751 | 15.18\% | 20.10\% | 33.0 | 43.6 | 115\% | 87\% |
| 65 | 33 | 170 | 0.1941 | 20.18\% | 20.31\% | 34.3 | 34.5 | 96\% | 96\% |
| 66 | 26 | 141 | 0.1844 | 15.00\% | 20.00\% | 21.2 | 28.2 | 123\% | 92\% |
| 67 | 13 | 97 | 0.1340 | 15.00\% | 20.00\% | 14.6 | 19.4 | 89\% | 67\% |
| 68 | 16 | 66 | 0.2424 | 15.00\% | 20.00\% | 9.9 | 13.2 | 162\% | 121\% |
| 69 | 11 | 32 | 0.3438 | 15.00\% | 20.00\% | 4.8 | 6.4 | 229\% | 172\% |
| 70 | 9 | 23 | 0.3913 | 100.00\% | 100.00\% | 23.0 | 23.0 | 39\% | 39\% |
| Subtotal | 3,596 | 16,144 |  |  |  | 2,630.0 | 4,812.1 | 137\% | 75\% |
| Other | 18 | 77 | 0.2338 | 100.00\% | 100.00\% | 77.0 | 77.0 | 23\% | 23\% |
| Total | 3,614 | 16,221 |  |  |  | 2,707.0 | 4,889.1 | 134\% | 74\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY

MEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 5C |  |  | 10-YEAR PERIOD ENDING 6/30/2013 ${ }^{\text {Ex }}$ Actual/ Expected |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total Exposed | Actual Rate (2) / (3) | Expected | Proposed | $\begin{aligned} & \text { Expected } \\ & (3) \times(5) \\ & \hline \end{aligned}$ | Proposed $(3) \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 13 | 13 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 56 | 81 | 417 | 0.1942 | 20.00\% | 21.00\% | 83.4 | 87.6 | 97\% | 92\% |
| 57 | 8 | 88 | 0.0909 | 20.00\% | 21.00\% | 17.6 | 18.5 | 45\% | 43\% |
| 58 | 12 | 99 | 0.1212 | 20.00\% | 21.00\% | 19.8 | 20.8 | 61\% | 58\% |
| 59 | 12 | 73 | 0.1644 | 20.00\% | 21.00\% | 14.6 | 15.3 | 82\% | 78\% |
| 60 | 14 | 56 | 0.2500 | 20.00\% | 21.00\% | 11.2 | 11.8 | 125\% | 119\% |
| 61 | 17 | 59 | 0.2881 | 20.00\% | 21.00\% | 11.8 | 12.4 | 144\% | 137\% |
| 62 | 3 | 16 | 0.1875 | 30.00\% | 31.50\% | 4.8 | 5.0 | 63\% | 60\% |
| 63 | 6 | 7 | 0.8571 | 20.00\% | 21.00\% | 1.4 | 1.5 | 429\% | 408\% |
| 64 | 0 | 0 | N/A | 20.00\% | 21.00\% | - | - | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 30.00\% | 31.50\% | - | - | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 20.00\% | 21.00\% | - | - | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 20.00\% | 21.00\% | - | - | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 20.00\% | 21.00\% | - | - | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 20.00\% | 21.00\% | - | - | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 100.00\% | - | - | 0\% | 0\% |
| Subtotal | 166 | 828 |  |  |  | 164.6 | 172.8 | 101\% | 96\% |
| Other | 0 | 0 | N/A | 100.00\% | 100.00\% | - | - | 0\% | 0\% |
| Total | 166 | 828 |  |  |  | 164.6 | 172.8 | 101\% | 96\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY WOMEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 5D |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements <br> Actual/ Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } /(\mathbf{3}) \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ (3) \times(6) \\ \hline \end{gathered}$ | $\begin{aligned} & \text { Expected } \\ & (2) /(7) \\ & \hline \end{aligned}$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 14 | 14 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 56 | 272 | 1,500 | 0.1813 | 20.00\% | 21.00\% | 300.0 | 315.0 | 91\% | 86\% |
| 57 | 36 | 365 | 0.0986 | 20.00\% | 21.00\% | 73.0 | 76.7 | 49\% | 47\% |
| 58 | 54 | 351 | 0.1538 | 20.00\% | 21.00\% | 70.2 | 73.7 | 77\% | 73\% |
| 59 | 50 | 310 | 0.1613 | 20.00\% | 21.00\% | 62.0 | 65.1 | 81\% | 77\% |
| 60 | 43 | 252 | 0.1706 | 20.00\% | 21.00\% | 50.4 | 52.9 | 85\% | 81\% |
| 61 | 54 | 197 | 0.2741 | 20.00\% | 21.00\% | 39.4 | 41.4 | 137\% | 131\% |
| 62 | 44 | 125 | 0.3520 | 30.00\% | 31.50\% | 37.5 | 39.4 | 117\% | 112\% |
| 63 | 22 | 37 | 0.5946 | 20.00\% | 21.00\% | 7.4 | 7.8 | 297\% | 283\% |
| 64 | 4 | 8 | 0.5000 | 20.00\% | 21.00\% | 1.6 | 1.7 | 250\% | 238\% |
| 65 | 0 | 3 | 0.0000 | 30.00\% | 31.50\% | 0.9 | 0.9 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 20.00\% | 21.00\% | - | - | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 20.00\% | 21.00\% | - | - | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 20.00\% | 21.00\% | - | - | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 20.00\% | 21.00\% | - | - | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 100.00\% | - | - | 0\% | 0\% |
| Subtotal | 593 | 3,162 |  |  |  | 642.4 | 674.5 | 92\% | 88\% |
| Other | 0 | 3 | 0.0000 | 100.00\% | 100.00\% | 3.0 | 3.0 | 0\% | 0\% |
| Total | 593 | 3,165 |  |  |  | 645.4 | 677.5 | 92\% | 88\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY MEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 5E |  |  | Assumed | bability | 10-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } /(\mathbf{3}) \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | $\begin{gathered} \text { Proposed } \\ (3) \times(6) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | $\begin{aligned} & \text { Proposed } \\ & (2) /(8) \\ & \hline \end{aligned}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 1 | 1 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 56 | 663 | 1,583 | 0.4188 | 15.00\% | 20.00\% | 237.5 | 316.6 | 279\% | 209\% |
| 57 | 27 | 123 | 0.2195 | 15.00\% | 15.00\% | 18.5 | 18.5 | 146\% | 146\% |
| 58 | 29 | 80 | 0.3625 | 15.00\% | 20.00\% | 12.0 | 16.0 | 242\% | 181\% |
| 59 | 20 | 80 | 0.2500 | 15.00\% | 15.00\% | 12.0 | 12.0 | 167\% | 167\% |
| 60 | 12 | 57 | 0.2105 | 15.00\% | 15.00\% | 8.6 | 8.6 | 140\% | 140\% |
| 61 | 11 | 41 | 0.2683 | 15.00\% | 15.00\% | 6.2 | 6.2 | 179\% | 179\% |
| 62 | 25 | 45 | 0.5556 | 20.00\% | 15.00\% | 9.0 | 6.8 | 278\% | 370\% |
| 63 | 265 | 1,829 | 0.1449 | 15.00\% | 45.00\% | 274.4 | 823.1 | 97\% | 32\% |
| 64 | 11 | 73 | 0.1507 | 15.00\% | 20.00\% | 11.0 | 14.6 | 100\% | 75\% |
| 65 | 8 | 53 | 0.1509 | 20.00\% | 20.00\% | 10.6 | 10.6 | 75\% | 75\% |
| 66 | 10 | 45 | 0.2222 | 15.00\% | 20.00\% | 6.8 | 9.0 | 148\% | 111\% |
| 67 | 6 | 35 | 0.1714 | 15.00\% | 20.00\% | 5.3 | 7.0 | 114\% | 86\% |
| 68 | 3 | 19 | 0.1579 | 15.00\% | 20.00\% | 2.9 | 3.8 | 105\% | 79\% |
| 69 | 0 | 13 | 0.0000 | 15.00\% | 20.00\% | 2.0 | 2.6 | 0\% | 0\% |
| 70 | 3 | 15 | 0.2000 | 100.00\% | 100.00\% | 15.0 | 15.0 | 20\% | 20\% |
| Subtotal | 1,094 | 4,092 |  |  |  | 631.3 | 1,270.2 | 173\% | 86\% |
| Other | 6 | 54 | 0.1111 | 100.00\% | 100.00\% | 54.0 | 54.0 | 11\% | 11\% |
| Total | 1,100 | 4,146 |  |  |  | 685.3 | 1,324.2 | 161\% | 83\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY WOMEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 5F |  |  | Assumed Probability |  | Expected Retirements |  | 13 Actua | ected |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 6 | 6 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 56 | 1,229 | 3,489 | 0.3522 | 15.00\% | 25.00\% | 523.4 | 872.3 | 235\% | 141\% |
| 57 | 77 | 308 | 0.2500 | 15.00\% | 25.00\% | 46.2 | 77.0 | 167\% | 100\% |
| 58 | 66 | 290 | 0.2276 | 15.00\% | 15.00\% | 43.5 | 43.5 | 152\% | 152\% |
| 59 | 47 | 221 | 0.2127 | 15.00\% | 15.00\% | 33.2 | 33.2 | 142\% | 142\% |
| 60 | 66 | 234 | 0.2821 | 15.00\% | 15.00\% | 35.1 | 35.1 | 188\% | 188\% |
| 61 | 46 | 167 | 0.2754 | 15.00\% | 15.00\% | 25.1 | 25.1 | 184\% | 184\% |
| 62 | 148 | 266 | 0.5564 | 20.00\% | 15.00\% | 53.2 | 39.9 | 278\% | 371\% |
| 63 | 1,176 | 7,266 | 0.1618 | 15.00\% | 40.00\% | 1,089.9 | 2,906.4 | 108\% | 40\% |
| 64 | 34 | 209 | 0.1627 | 15.00\% | 20.00\% | 31.4 | 41.8 | 108\% | 81\% |
| 65 | 33 | 167 | 0.1976 | 20.00\% | 20.00\% | 33.4 | 33.4 | 99\% | 99\% |
| 66 | 26 | 141 | 0.1844 | 15.00\% | 20.00\% | 21.2 | 28.2 | 123\% | 92\% |
| 67 | 13 | 97 | 0.1340 | 15.00\% | 20.00\% | 14.6 | 19.4 | 89\% | 67\% |
| 68 | 16 | 66 | 0.2424 | 15.00\% | 20.00\% | 9.9 | 13.2 | 162\% | 121\% |
| 69 | 11 | 32 | 0.3438 | 15.00\% | 20.00\% | 4.8 | 6.4 | 229\% | 172\% |
| 70 | 9 | 23 | 0.3913 | 100.00\% | 100.00\% | 23.0 | 23.0 | 39\% | 39\% |
| Subtotal | 3,003 | 12,982 |  |  |  | 1,987.6 | 4,197.8 | 151\% | 72\% |
| Other | 18 | 74 | 0.2432 | 100.00\% | 100.00\% | 74.0 | 74.0 | 24\% | 24\% |
| Total | 3,021 | 13,056 |  |  |  | 2,061.6 | 4,271.8 | 147\% | 71\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY TOTAL - MEN

|  | TABLE 6A |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2)/(3) } \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 56 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 57 | 57 | 354 | 0.1610 | 18.11\% | 20.00\% | 64.1 | 70.8 | 89\% | 81\% |
| 58 | 67 | 382 | 0.1754 | 17.85\% | 20.00\% | 68.2 | 76.4 | 98\% | 88\% |
| 59 | 78 | 399 | 0.1955 | 17.58\% | 20.00\% | 70.2 | 79.8 | 111\% | 98\% |
| 60 | 77 | 404 | 0.1906 | 17.45\% | 20.00\% | 70.5 | 80.8 | 109\% | 95\% |
| 61 | 68 | 366 | 0.1858 | 17.25\% | 20.00\% | 63.2 | 73.2 | 108\% | 93\% |
| 62 | 93 | 365 | 0.2548 | 23.59\% | 23.59\% | 86.1 | 86.1 | 108\% | 108\% |
| 63 | 92 | 290 | 0.3172 | 16.14\% | 18.41\% | 46.8 | 53.4 | 197\% | 172\% |
| 64 | 165 | 1,062 | 0.1554 | 15.10\% | 15.31\% | 160.4 | 162.6 | 103\% | 101\% |
| 65 | 145 | 863 | 0.1680 | 20.08\% | 20.08\% | 173.3 | 173.3 | 84\% | 84\% |
| 66 | 121 | 684 | 0.1769 | 15.00\% | 20.00\% | 102.6 | 136.8 | 118\% | 88\% |
| 67 | 106 | 491 | 0.2159 | 15.00\% | 20.00\% | 73.7 | 98.2 | 144\% | 108\% |
| 68 | 83 | 379 | 0.2190 | 15.00\% | 20.00\% | 56.9 | 75.8 | 146\% | 109\% |
| 69 | 67 | 317 | 0.2114 | 15.00\% | 20.00\% | 47.6 | 63.4 | 141\% | 106\% |
| 70 | 46 | 246 | 0.1870 | 100.00\% | 100.00\% | 246.0 | 246.0 | 19\% | 19\% |
| Subtotal | 1,265 | 6,602 |  |  |  | 1,329.4 | 1,476.6 | 95\% | 86\% |
| Other | 168 | 927 | 0.1812 | 100.00\% | 100.00\% | 927.0 | 927.0 | 18\% | 18\% |
| Total | 1,433 | 7,529 |  |  |  | 2,256.4 | 2,403.6 | 64\% | 60\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY TOTAL - WOMEN

|  | TABLE 6B |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements $\quad$ Actual/ Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - |  | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - |  | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 56 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 57 | 189 | 1,185 | 0.1595 | 18.49\% | 18.49\% | 219.2 | 219.2 | 86\% | 86\% |
| 58 | 252 | 1,262 | 0.1997 | 18.36\% | 20.00\% | 231.7 | 252.4 | 109\% | 100\% |
| 59 | 233 | 1,331 | 0.1751 | 17.98\% | 20.00\% | 239.3 | 266.2 | 97\% | 88\% |
| 60 | 292 | 1,374 | 0.2125 | 17.68\% | 20.00\% | 242.9 | 274.8 | 120\% | 106\% |
| 61 | 293 | 1,313 | 0.2232 | 17.31\% | 20.00\% | 227.3 | 262.6 | 129\% | 112\% |
| 62 | 319 | 1,185 | 0.2692 | 23.90\% | 23.90\% | 283.2 | 283.2 | 113\% | 113\% |
| 63 | 312 | 928 | 0.3362 | 16.52\% | 23.04\% | 153.3 | 213.8 | 204\% | 146\% |
| 64 | 605 | 3,646 | 0.1659 | 15.14\% | 18.33\% | 551.9 | 668.3 | 110\% | 91\% |
| 65 | 520 | 2,871 | 0.1811 | 20.11\% | 18.13\% | 577.4 | 520.6 | 90\% | 100\% |
| 66 | 511 | 2,243 | 0.2278 | 15.00\% | 20.01\% | 336.6 | 448.8 | 152\% | 114\% |
| 67 | 415 | 1,604 | 0.2587 | 15.01\% | 20.01\% | 240.7 | 321.0 | 172\% | 129\% |
| 68 | 237 | 1,192 | 0.1988 | 15.00\% | 20.01\% | 178.9 | 238.5 | 133\% | 99\% |
| 69 | 192 | 903 | 0.2126 | 15.00\% | 20.00\% | 135.5 | 180.6 | 142\% | 106\% |
| 70 | 172 | 727 | 0.2366 | 100.00\% | 100.00\% | 727.0 | 727.0 | 24\% | 24\% |
| Subtotal | 4,542 | 21,764 |  |  |  | 4,344.6 | 4,877.0 | 105\% | 93\% |
| Other | 536 | 2,355 | 0.2276 | 100.00\% | 100.00\% | 2,355.0 | 2,355.0 | 23\% | 23\% |
| Total | 5,078 | 24,119 |  |  |  | 6,699.6 | 7,232.0 | 76\% | 70\% |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY <br> MEN - ELECTED RETIREMENT BENEFIT



TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY WOMEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 6D |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 56 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 57 | 136 | 828 | 0.1643 | 20.00\% | 20.00\% | 165.6 | 165.6 | 82\% | 82\% |
| 58 | 170 | 848 | 0.2005 | 20.00\% | 20.00\% | 169.6 | 169.6 | 100\% | 100\% |
| 59 | 149 | 792 | 0.1881 | 20.00\% | 20.00\% | 158.4 | 158.4 | 94\% | 94\% |
| 60 | 148 | 736 | 0.2011 | 20.00\% | 20.00\% | 147.2 | 147.2 | 101\% | 101\% |
| 61 | 132 | 606 | 0.2178 | 20.00\% | 20.00\% | 121.2 | 121.2 | 109\% | 109\% |
| 62 | 121 | 462 | 0.2619 | 30.00\% | 30.00\% | 138.6 | 138.6 | 87\% | 87\% |
| 63 | 90 | 282 | 0.3191 | 20.00\% | 30.00\% | 56.4 | 84.6 | 160\% | 106\% |
| 64 | 27 | 100 | 0.2700 | 20.00\% | 30.00\% | 20.0 | 30.0 | 135\% | 90\% |
| 65 | 9 | 32 | 0.2813 | 30.00\% | 30.00\% | 9.6 | 9.6 | 94\% | 94\% |
| 66 | 0 | 2 | 0.0000 | 20.00\% | 30.00\% | 0.4 | 0.6 | 0\% | 0\% |
| 67 | 1 | 2 | 0.5000 | 20.00\% | 30.00\% | 0.4 | 0.6 | 250\% | 167\% |
| 68 | 1 | 1 | 1.0000 | 20.00\% | 30.00\% | 0.2 | 0.3 | 500\% | 333\% |
| 69 | 0 | 0 | N/A | 20.00\% | 30.00\% | - | - | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 100.00\% | - | - | 0\% | 0\% |
| Subtotal | 984 | 4,691 |  |  |  | 987.6 | 1,026.3 | 100\% | 96\% |
| Other | 0 | 12 | 0.0000 | 100.00\% | 100.00\% | 12.0 | 12.0 | 0\% | 0\% |
| Total | 984 | 4,703 |  |  |  | 999.6 | 1,038.3 | 98\% | 95\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY MEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 6E |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed <br> (3) $\times(6)$ | Expected $(2) /(7)$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 56 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 57 | 25 | 134 | 0.1866 | 15.00\% | 20.00\% | 20.1 | 26.8 | 124\% | 93\% |
| 58 | 26 | 164 | 0.1585 | 15.00\% | 20.00\% | 24.6 | 32.8 | 106\% | 79\% |
| 59 | 44 | 193 | 0.2280 | 15.00\% | 20.00\% | 29.0 | 38.6 | 152\% | 114\% |
| 60 | 42 | 206 | 0.2039 | 15.00\% | 20.00\% | 30.9 | 41.2 | 136\% | 102\% |
| 61 | 41 | 201 | 0.2040 | 15.00\% | 20.00\% | 30.2 | 40.2 | 136\% | 102\% |
| 62 | 55 | 234 | 0.2350 | 20.00\% | 20.00\% | 46.8 | 46.8 | 118\% | 118\% |
| 63 | 71 | 224 | 0.3170 | 15.00\% | 15.00\% | 33.6 | 33.6 | 211\% | 211\% |
| 64 | 161 | 1,040 | 0.1548 | 15.00\% | 15.00\% | 156.0 | 156.0 | 103\% | 103\% |
| 65 | 141 | 856 | 0.1647 | 20.00\% | 20.00\% | 171.2 | 171.2 | 82\% | 82\% |
| 66 | 121 | 684 | 0.1769 | 15.00\% | 20.00\% | 102.6 | 136.8 | 118\% | 88\% |
| 67 | 106 | 491 | 0.2159 | 15.00\% | 20.00\% | 73.7 | 98.2 | 144\% | 108\% |
| 68 | 83 | 379 | 0.2190 | 15.00\% | 20.00\% | 56.9 | 75.8 | 146\% | 109\% |
| 69 | 67 | 317 | 0.2114 | 15.00\% | 20.00\% | 47.6 | 63.4 | 141\% | 106\% |
| 70 | 46 | 246 | 0.1870 | 100.00\% | 100.00\% | 246.0 | 246.0 | 19\% | 19\% |
| Subtotal | 1,029 | 5,369 |  |  |  | 1,069.0 | 1,207.4 | 96\% | 85\% |
| Other | 168 | 927 | 0.1812 | 100.00\% | 100.00\% | 927.0 | 927.0 | 18\% | 18\% |
| Total | 1,197 | 6,296 |  |  |  | 1,996.0 | 2,134.4 | 60\% | 56\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY WOMEN - MANDATED RETIREMENT BENEFIT

| Age | TABLE 6F |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements Actual/ Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed <br> (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 56 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 57 | 53 | 357 | 0.1485 | 15.00\% | 15.00\% | 53.6 | 53.6 | 99\% | 99\% |
| 58 | 82 | 414 | 0.1981 | 15.00\% | 20.00\% | 62.1 | 82.8 | 132\% | 99\% |
| 59 | 84 | 539 | 0.1558 | 15.00\% | 20.00\% | 80.9 | 107.8 | 104\% | 78\% |
| 60 | 144 | 638 | 0.2257 | 15.00\% | 20.00\% | 95.7 | 127.6 | 150\% | 113\% |
| 61 | 161 | 707 | 0.2277 | 15.00\% | 20.00\% | 106.1 | 141.4 | 152\% | 114\% |
| 62 | 198 | 723 | 0.2739 | 20.00\% | 20.00\% | 144.6 | 144.6 | 137\% | 137\% |
| 63 | 222 | 646 | 0.3437 | 15.00\% | 20.00\% | 96.9 | 129.2 | 229\% | 172\% |
| 64 | 578 | 3,546 | 0.1630 | 15.00\% | 18.00\% | 531.9 | 638.3 | 109\% | 91\% |
| 65 | 511 | 2,839 | 0.1800 | 20.00\% | 18.00\% | 567.8 | 511.0 | 90\% | 100\% |
| 66 | 511 | 2,241 | 0.2280 | 15.00\% | 20.00\% | 336.2 | 448.2 | 152\% | 114\% |
| 67 | 414 | 1,602 | 0.2584 | 15.00\% | 20.00\% | 240.3 | 320.4 | 172\% | 129\% |
| 68 | 236 | 1,191 | 0.1982 | 15.00\% | 20.00\% | 178.7 | 238.2 | 132\% | 99\% |
| 69 | 192 | 903 | 0.2126 | 15.00\% | 20.00\% | 135.5 | 180.6 | 142\% | 106\% |
| 70 | 172 | 727 | 0.2366 | 100.00\% | 100.00\% | 727.0 | 727.0 | 24\% | 24\% |
| Subtotal | 3,558 | 17,073 |  |  |  | 3,357.0 | 3,850.7 | 106\% | 92\% |
| Other | 536 | 2,343 | 0.2288 | 100.00\% | 100.00\% | 2,343.0 | 2,343.0 | 23\% | 23\% |
| Total | 4,094 | 19,416 |  |  |  | 5,700.0 | 6,193.7 | 72\% | 66\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY TOTAL - MEN

|  | TABLE 6A |  |  | Assumed | bability | 10-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 56 | 1 | 1 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 57 | 531 | 1,628 | 0.3262 | 15.83\% | 20.00\% | 257.7 | 325.6 | 206\% | 163\% |
| 58 | 461 | 1,498 | 0.3077 | 15.86\% | 20.00\% | 237.7 | 299.6 | 194\% | 154\% |
| 59 | 368 | 1,316 | 0.2796 | 15.89\% | 20.00\% | 209.2 | 263.2 | 176\% | 140\% |
| 60 | 313 | 1,167 | 0.2682 | 15.93\% | 20.00\% | 185.9 | 233.4 | 168\% | 134\% |
| 61 | 236 | 999 | 0.2362 | 15.87\% | 20.00\% | 158.6 | 199.8 | 149\% | 118\% |
| 62 | 242 | 856 | 0.2827 | 21.54\% | 21.54\% | 184.4 | 184.4 | 131\% | 131\% |
| 63 | 171 | 651 | 0.2627 | 15.51\% | 16.52\% | 101.0 | 107.6 | 169\% | 159\% |
| 64 | 302 | 1,997 | 0.1512 | 15.06\% | 15.17\% | 300.7 | 302.9 | 100\% | 100\% |
| 65 | 286 | 1,625 | 0.1760 | 20.04\% | 20.04\% | 325.7 | 325.7 | 88\% | 88\% |
| 66 | 234 | 1,268 | 0.1845 | 15.00\% | 20.00\% | 190.2 | 253.6 | 123\% | 92\% |
| 67 | 186 | 947 | 0.1964 | 15.00\% | 20.00\% | 142.1 | 189.4 | 131\% | 98\% |
| 68 | 143 | 770 | 0.1857 | 15.00\% | 20.00\% | 115.5 | 154.0 | 124\% | 93\% |
| 69 | 128 | 619 | 0.2068 | 15.00\% | 20.00\% | 92.9 | 123.8 | 138\% | 103\% |
| 70 | 87 | 478 | 0.1820 | 100.00\% | 100.00\% | 478.0 | 478.0 | 18\% | 18\% |
| Subtotal | 3,689 | 15,820 |  |  |  | 2,979.2 | 3,440.9 | 124\% | 107\% |
| Other | 332 | 1,854 | 0.1791 | 100.00\% | 100.00\% | 1,854.0 | 1,854.0 | 18\% | 18\% |
| Total | 4,021 | 17,674 |  |  |  | 4,833.2 | 5,294.9 | 83\% | 76\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY TOTAL - WOMEN

|  | TABLE 6B |  |  | Assumed | bability | 10-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 1 | 1 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 56 | 7 | 7 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 57 | 945 | 3,832 | 0.2466 | 16.32\% | 16.32\% | 625.2 | 625.2 | 151\% | 151\% |
| 58 | 878 | 3,614 | 0.2429 | 16.38\% | 20.00\% | 592.1 | 722.8 | 148\% | 121\% |
| 59 | 791 | 3,340 | 0.2368 | 16.34\% | 20.00\% | 545.9 | 668.0 | 145\% | 118\% |
| 60 | 797 | 3,071 | 0.2595 | 16.30\% | 20.00\% | 500.5 | 614.2 | 159\% | 130\% |
| 61 | 676 | 2,675 | 0.2527 | 16.18\% | 20.00\% | 432.9 | 535.0 | 156\% | 126\% |
| 62 | 715 | 2,288 | 0.3125 | 22.03\% | 22.03\% | 504.1 | 504.1 | 142\% | 142\% |
| 63 | 546 | 1,737 | 0.3143 | 15.81\% | 21.62\% | 274.7 | 375.6 | 199\% | 145\% |
| 64 | 1,176 | 6,936 | 0.1696 | 15.07\% | 18.17\% | 1,045.4 | 1,260.5 | 112\% | 93\% |
| 65 | 1,119 | 5,623 | 0.1990 | 20.06\% | 18.07\% | 1,127.8 | 1,016.0 | 99\% | 110\% |
| 66 | 982 | 4,305 | 0.2281 | 15.00\% | 20.01\% | 645.9 | 861.3 | 152\% | 114\% |
| 67 | 723 | 3,175 | 0.2277 | 15.00\% | 20.01\% | 476.4 | 635.2 | 152\% | 114\% |
| 68 | 484 | 2,416 | 0.2003 | 15.00\% | 20.00\% | 362.5 | 483.3 | 134\% | 100\% |
| 69 | 393 | 1,871 | 0.2100 | 15.00\% | 20.00\% | 280.7 | 374.2 | 140\% | 105\% |
| 70 | 335 | 1,485 | 0.2256 | 100.00\% | 100.00\% | 1,485.0 | 1,485.0 | 23\% | 23\% |
| Subtotal | 10,568 | 46,376 |  |  |  | 8,898.8 | 10,160.4 | 119\% | 104\% |
| Other | 1,068 | 5,094 | 0.2097 | 100.00\% | 100.00\% | 5,094.0 | 5,094.0 | 21\% | 21\% |
| Total | 11,636 | 51,470 |  |  |  | 13,992.8 | 15,254.4 | 83\% | 76\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY MEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 6C |  |  | Assumed | bability | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed <br> (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 56 | 1 | 1 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 57 | 34 | 270 | 0.1259 | 20.00\% | 20.00\% | 54.0 | 54.0 | 63\% | 63\% |
| 58 | 41 | 259 | 0.1583 | 20.00\% | 20.00\% | 51.8 | 51.8 | 79\% | 79\% |
| 59 | 34 | 235 | 0.1447 | 20.00\% | 20.00\% | 47.0 | 47.0 | 72\% | 72\% |
| 60 | 37 | 216 | 0.1713 | 20.00\% | 20.00\% | 43.2 | 43.2 | 86\% | 86\% |
| 61 | 29 | 174 | 0.1667 | 20.00\% | 20.00\% | 34.8 | 34.8 | 83\% | 83\% |
| 62 | 38 | 132 | 0.2879 | 30.00\% | 30.00\% | 39.6 | 39.6 | 96\% | 96\% |
| 63 | 21 | 66 | 0.3182 | 20.00\% | 30.00\% | 13.2 | 19.8 | 159\% | 106\% |
| 64 | 4 | 22 | 0.1818 | 20.00\% | 30.00\% | 4.4 | 6.6 | 91\% | 61\% |
| 65 | 4 | 7 | 0.5714 | 30.00\% | 30.00\% | 2.1 | 2.1 | 190\% | 190\% |
| 66 | 0 | 0 | N/A | 20.00\% | 30.00\% | - | - | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 20.00\% | 30.00\% | - | - | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 20.00\% | 30.00\% | - | - | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 20.00\% | 30.00\% | - | - | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 100.00\% | - | - | 0\% | 0\% |
| Subtotal | 243 | 1,382 |  |  |  | 290.1 | 298.9 | 84\% | 81\% |
| Other | 0 | 0 | N/A | 100.00\% | 100.00\% | - | - | 0\% | 0\% |
| Total | 243 | 1,382 |  |  |  | 290.1 | 298.9 | 84\% | 81\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY WOMEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 6D |  |  | $\begin{array}{cc}\text { Assumed Probability } & \begin{array}{c}\text { 10-YEAR PERIOD ENDING 6/30/2013 } \\ \text { Expected Retirements }\end{array} \\ \text { Actual/ Expected }\end{array}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 56 | 7 | 7 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 57 | 132 | 1,008 | 0.1310 | 20.00\% | 20.00\% | 201.6 | 201.6 | 65\% | 65\% |
| 58 | 177 | 999 | 0.1772 | 20.00\% | 20.00\% | 199.8 | 199.8 | 89\% | 89\% |
| 59 | 151 | 897 | 0.1683 | 20.00\% | 20.00\% | 179.4 | 179.4 | 84\% | 84\% |
| 60 | 148 | 797 | 0.1857 | 20.00\% | 20.00\% | 159.4 | 159.4 | 93\% | 93\% |
| 61 | 134 | 633 | 0.2117 | 20.00\% | 20.00\% | 126.6 | 126.6 | 106\% | 106\% |
| 62 | 122 | 465 | 0.2624 | 30.00\% | 30.00\% | 139.5 | 139.5 | 87\% | 87\% |
| 63 | 90 | 282 | 0.3191 | 20.00\% | 30.00\% | 56.4 | 84.6 | 160\% | 106\% |
| 64 | 27 | 100 | 0.2700 | 20.00\% | 30.00\% | 20.0 | 30.0 | 135\% | 90\% |
| 65 | 9 | 32 | 0.2813 | 30.00\% | 30.00\% | 9.6 | 9.6 | 94\% | 94\% |
| 66 | 0 | 3 | 0.0000 | 20.00\% | 30.00\% | 0.6 | 0.9 | 0\% | 0\% |
| 67 | 1 | 2 | 0.5000 | 20.00\% | 30.00\% | 0.4 | 0.6 | 250\% | 167\% |
| 68 | 1 | 1 | 1.0000 | 20.00\% | 30.00\% | 0.2 | 0.3 | 500\% | 333\% |
| 69 | 0 | 0 | N/A | 20.00\% | 30.00\% | - | - | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 100.00\% | - | - | 0\% | 0\% |
| Subtotal | 999 | 5,226 |  |  |  | 1,093.5 | 1,132.3 | 91\% | 88\% |
| Other | 0 | 20 | 0.0000 | 100.00\% | 100.00\% | 20.0 | 20.0 | 0\% | 0\% |
| Total | 999 | 5,246 |  |  |  | 1,113.5 | 1,152.3 | 90\% | 87\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY MEN - MANDATED RETIREMENT BENEFIT

| Age | TABLE 6E |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements Actual/ Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 56 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 57 | 497 | 1,358 | 0.3660 | 15.00\% | 20.00\% | 203.7 | 271.6 | 244\% | 183\% |
| 58 | 420 | 1,239 | 0.3390 | 15.00\% | 20.00\% | 185.9 | 247.8 | 226\% | 169\% |
| 59 | 334 | 1,081 | 0.3090 | 15.00\% | 20.00\% | 162.2 | 216.2 | 206\% | 154\% |
| 60 | 276 | 951 | 0.2902 | 15.00\% | 20.00\% | 142.7 | 190.2 | 193\% | 145\% |
| 61 | 207 | 825 | 0.2509 | 15.00\% | 20.00\% | 123.8 | 165.0 | 167\% | 125\% |
| 62 | 204 | 724 | 0.2818 | 20.00\% | 20.00\% | 144.8 | 144.8 | 141\% | 141\% |
| 63 | 150 | 585 | 0.2564 | 15.00\% | 15.00\% | 87.8 | 87.8 | 171\% | 171\% |
| 64 | 298 | 1,975 | 0.1509 | 15.00\% | 15.00\% | 296.3 | 296.3 | 101\% | 101\% |
| 65 | 282 | 1,618 | 0.1743 | 20.00\% | 20.00\% | 323.6 | 323.6 | 87\% | 87\% |
| 66 | 234 | 1,268 | 0.1845 | 15.00\% | 20.00\% | 190.2 | 253.6 | 123\% | 92\% |
| 67 | 186 | 947 | 0.1964 | 15.00\% | 20.00\% | 142.1 | 189.4 | 131\% | 98\% |
| 68 | 143 | 770 | 0.1857 | 15.00\% | 20.00\% | 115.5 | 154.0 | 124\% | 93\% |
| 69 | 128 | 619 | 0.2068 | 15.00\% | 20.00\% | 92.9 | 123.8 | 138\% | 103\% |
| 70 | 87 | 478 | 0.1820 | 100.00\% | 100.00\% | 478.0 | 478.0 | 18\% | 18\% |
| Subtotal | 3,446 | 14,438 |  |  |  | 2,689.1 | 3,142.0 | 128\% | 110\% |
| Other | 332 | 1,854 | 0.1791 | 100.00\% | 100.00\% | 1,854.0 | 1,854.0 | 18\% | 18\% |
| Total | 3,778 | 16,292 |  |  |  | 4,543.1 | 4,996.0 | 83\% | 76\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY WOMEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 6F |  |  | Assumed | bability | 10-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 1 | 1 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 56 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 57 | 813 | 2,824 | 0.2879 | 15.00\% | 15.00\% | 423.6 | 423.6 | 192\% | 192\% |
| 58 | 701 | 2,615 | 0.2681 | 15.00\% | 20.00\% | 392.3 | 523.0 | 179\% | 134\% |
| 59 | 640 | 2,443 | 0.2620 | 15.00\% | 20.00\% | 366.5 | 488.6 | 175\% | 131\% |
| 60 | 649 | 2,274 | 0.2854 | 15.00\% | 20.00\% | 341.1 | 454.8 | 190\% | 143\% |
| 61 | 542 | 2,042 | 0.2654 | 15.00\% | 20.00\% | 306.3 | 408.4 | 177\% | 133\% |
| 62 | 593 | 1,823 | 0.3253 | 20.00\% | 20.00\% | 364.6 | 364.6 | 163\% | 163\% |
| 63 | 456 | 1,455 | 0.3134 | 15.00\% | 20.00\% | 218.3 | 291.0 | 209\% | 157\% |
| 64 | 1,149 | 6,836 | 0.1681 | 15.00\% | 18.00\% | 1,025.4 | 1,230.5 | 112\% | 93\% |
| 65 | 1,110 | 5,591 | 0.1985 | 20.00\% | 18.00\% | 1,118.2 | 1,006.4 | 99\% | 110\% |
| 66 | 982 | 4,302 | 0.2283 | 15.00\% | 20.00\% | 645.3 | 860.4 | 152\% | 114\% |
| 67 | 722 | 3,173 | 0.2275 | 15.00\% | 20.00\% | 476.0 | 634.6 | 152\% | 114\% |
| 68 | 483 | 2,415 | 0.2000 | 15.00\% | 20.00\% | 362.3 | 483.0 | 133\% | 100\% |
| 69 | 393 | 1,871 | 0.2100 | 15.00\% | 20.00\% | 280.7 | 374.2 | 140\% | 105\% |
| 70 | 335 | 1,485 | 0.2256 | 100.00\% | 100.00\% | 1,485.0 | 1,485.0 | 23\% | 23\% |
| Subtotal | 9,569 | 41,150 |  |  |  | 7,805.3 | 9,028.1 | 123\% | 106\% |
| Other | 1,068 | 5,074 | 0.2105 | 100.00\% | 100.00\% | 5,074.0 | 5,074.0 | 21\% | 21\% |
| Total | 10,637 | 46,224 |  |  |  | 12,879.3 | 14,102.1 | 83\% | 75\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF ACTIVE MEMBERS WITH UNREDUCED SERVICE TOTAL - MEN AND WOMEN

| Plan <br> Year | TABLE 6G |  | 10-YEAR PERIOD ENDING 6/30/2013 <br> Retirement Rate |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending June 30, | Life Years Exposed | Actual <br> Retirements | Expected Retirements | Actual/ Expected | $\begin{aligned} & \text { Actual } \\ & \text { (3) / (2) } \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 12,524 | 4,629 | 2,835.3 | 163\% | 36.96\% | 22.64\% |
| 2005 | 10,736 | 2,998 | 2,527.0 | 119\% | 27.92\% | 23.54\% |
| 2006 | 10,028 | 2,468 | 2,413.2 | 102\% | 24.61\% | 24.06\% |
| 2007 | 9,733 | 2,122 | 2,405.9 | 88\% | 21.80\% | 24.72\% |
| 2008 | 10,136 | 2,102 | 2,555.1 | 82\% | 20.74\% | 25.21\% |
| 2009 | 10,893 | 1,799 | 2,795.2 | 64\% | 16.52\% | 25.66\% |
| 2010 | 11,703 | 2,144 | 3,032.2 | 71\% | 18.32\% | 25.91\% |
| 2011 | 13,844 | 2,812 | 3,670.5 | 77\% | 20.31\% | 26.51\% |
| 2012 | 13,782 | 3,010 | 3,632.1 | 83\% | 21.84\% | 26.35\% |
| 2013 | 14,008 | 2,627 | 3,740.9 | 70\% | 18.75\% | 26.71\% |
| Total | 117,387 | 26,711 | 29,607.3 | 90\% | 22.75\% | 25.22\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF ACTIVE MEMBERS WITH REDUCED SERVICE TOTAL - MEN

|  | TABLE 7A |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013$\begin{aligned} & \text { Expected Retirements }\end{aligned} \quad$ Actual/ Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times$ (5) | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 53 | 1,767 | 0.0300 | 2.00\% | 2.40\% | 35.3 | 42.4 | 150\% | 125\% |
| 56 | 65 | 1,664 | 0.0391 | 2.00\% | 2.40\% | 33.3 | 39.9 | 195\% | 163\% |
| 57 | 57 | 1,543 | 0.0369 | 2.00\% | 2.40\% | 30.9 | 37.0 | 185\% | 154\% |
| 58 | 59 | 1,543 | 0.0382 | 2.00\% | 2.40\% | 30.9 | 37.0 | 191\% | 159\% |
| 59 | 79 | 1,440 | 0.0549 | 3.00\% | 3.60\% | 43.2 | 51.8 | 183\% | 152\% |
| 60 | 79 | 1,401 | 0.0564 | 4.00\% | 4.80\% | 56.0 | 67.2 | 141\% | 117\% |
| 61 | 77 | 1,348 | 0.0571 | 5.00\% | 6.00\% | 67.4 | 80.9 | 114\% | 95\% |
| 62 | 6 | 22 | 0.2727 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 63 | 2 | 4 | 0.5000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 64 | 2 | 3 | 0.6667 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 65 | 1 | 2 | 0.5000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 66 | 1 | 1 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 67 | 1 | 1 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 69 | 0 | 1 | 0.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 70 | 1 | 1 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| Subtotal | 483 | 10,741 |  |  |  | 297.0 | 356.4 | 163\% | 136\% |
| Other | 5 | 5 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| Total | 488 | 10,746 |  |  |  | 297.0 | 356.4 | 164\% | 137\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF ACTIVE MEMBERS WITH REDUCED SERVICE TOTAL- WOMEN

|  | TABLE 7B |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 147 | 6,665 | 0.0221 | 2.00\% | 2.20\% | 133.3 | 146.6 | 110\% | 100\% |
| 56 | 163 | 6,600 | 0.0247 | 2.00\% | 2.20\% | 132.0 | 145.2 | 123\% | 112\% |
| 57 | 178 | 6,351 | 0.0280 | 2.00\% | 2.20\% | 127.0 | 139.7 | 140\% | 127\% |
| 58 | 222 | 6,232 | 0.0356 | 2.00\% | 2.20\% | 124.6 | 137.1 | 178\% | 162\% |
| 59 | 245 | 5,858 | 0.0418 | 3.00\% | 3.30\% | 175.7 | 193.3 | 139\% | 127\% |
| 60 | 303 | 5,579 | 0.0543 | 4.00\% | 4.40\% | 223.2 | 245.5 | 136\% | 123\% |
| 61 | 250 | 4,928 | 0.0507 | 5.00\% | 5.50\% | 246.4 | 271.0 | 101\% | 92\% |
| 62 | 15 | 91 | 0.1648 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 63 | 10 | 11 | 0.9091 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 64 | 6 | 7 | 0.8571 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 65 | 1 | 4 | 0.2500 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 66 | 1 | 4 | 0.2500 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 67 | 2 | 3 | 0.6667 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| Subtotal | 1,543 | 42,333 |  |  |  | 1,162.3 | 1,278.5 | 133\% | 121\% |
| Other | 7 | 7 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| Total | 1,550 | 42,340 |  |  |  | 1,162.3 | 1,278.5 | 133\% | 121\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK retirement experience of active members with reduced service TOTAL - MEN

|  | TABLE 7A |  |  | Assumed Probability $\quad \begin{gathered}\text { 10-YEAR PERIOD ENDING 6/30/2013 } \\ \text { Expected Retirements }\end{gathered}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 1 | 0.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 0 | 1 | 0.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 1 | 21 | 0.0476 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 12 | 141 | 0.0851 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 108 | 486 | 0.2222 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 174 | 4,549 | 0.0383 | 2.00\% | 2.40\% | 91.0 | 109.2 | 191\% | 159\% |
| 56 | 176 | 4,205 | 0.0419 | 2.00\% | 2.40\% | 84.1 | 100.9 | 209\% | 174\% |
| 57 | 162 | 3,877 | 0.0418 | 2.00\% | 2.40\% | 77.5 | 93.0 | 209\% | 174\% |
| 58 | 158 | 3,526 | 0.0448 | 2.00\% | 2.40\% | 70.5 | 84.6 | 224\% | 187\% |
| 59 | 172 | 3,172 | 0.0542 | 3.00\% | 3.60\% | 95.2 | 114.2 | 181\% | 151\% |
| 60 | 169 | 2,924 | 0.0578 | 4.00\% | 4.80\% | 117.0 | 140.4 | 144\% | 120\% |
| 61 | 175 | 2,629 | 0.0666 | 5.00\% | 6.00\% | 131.5 | 157.7 | 133\% | 111\% |
| 62 | 12 | 12 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 63 | 7 | 7 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 64 | 7 | 7 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 65 | 6 | 6 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 66 | 3 | 3 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 67 | 8 | 8 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 68 | 3 | 3 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 69 | 1 | 1 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 70 | 4 | 4 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| Subtotal | 1,358 | 25,583 |  |  |  | 666.7 | 800.1 | 204\% | 170\% |
| Other | 6 | 6 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| Total | 1,364 | 25,589 |  |  |  | 666.7 | 800.1 | 205\% | 170\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF ACTIVE MEMBERS WITH REDUCED SERVICE TOTAL- WOMEN

| Age | TABLE 7B |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements Actual/ Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Retirements | Total Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 47 | 1 | 1 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 49 | 0 | 1 | 0.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 50 | 0 | 1 | 0.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 51 | 3 | 17 | 0.1765 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 52 | 4 | 105 | 0.0381 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 53 | 27 | 427 | 0.0632 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 54 | 183 | 1,091 | 0.1677 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 55 | 522 | 17,017 | 0.0307 | 2.00\% | 2.20\% | 340.3 | 374.4 | 153\% | 139\% |
| 56 | 530 | 16,123 | 0.0329 | 2.00\% | 2.20\% | 322.5 | 354.7 | 164\% | 149\% |
| 57 | 488 | 14,968 | 0.0326 | 2.00\% | 2.20\% | 299.4 | 329.3 | 163\% | 148\% |
| 58 | 516 | 13,792 | 0.0374 | 2.00\% | 2.20\% | 275.8 | 303.4 | 187\% | 170\% |
| 59 | 566 | 12,544 | 0.0451 | 3.00\% | 3.30\% | 376.3 | 414.0 | 150\% | 137\% |
| 60 | 657 | 11,544 | 0.0569 | 4.00\% | 4.40\% | 461.8 | 507.9 | 142\% | 129\% |
| 61 | 612 | 10,200 | 0.0600 | 5.00\% | 5.50\% | 510.0 | 561.0 | 120\% | 109\% |
| 62 | 37 | 37 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 63 | 29 | 29 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 64 | 17 | 17 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 65 | 13 | 13 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 66 | 11 | 11 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 67 | 7 | 7 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 68 | 6 | 6 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 69 | 2 | 2 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| Subtotal | 4,231 | 97,953 |  |  |  | 2,586.1 | 2,844.7 | 164\% | 149\% |
| Other | 12 | 12 | 1.0000 | 0.00\% | 0.00\% | - | - | 0\% | 0\% |
| Total | 4,243 | 97,965 |  |  |  | 2,586.1 | 2,844.7 | 164\% | 149\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK RETIREMENT EXPERIENCE OF ACTIVE MEMBERS WITH REDUCED SERVICE TOTAL - MEN AND WOMEN

| Plan Year | TABLE 7C |  |  | 10-YEAR PER | Retirement Rate |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending June 30, | Life Years Exposed | Actual <br> Retirements | Expected Retirements | Actual/ Expected | $\begin{aligned} & \hline \text { Actual } \\ & \text { (3) / (2) } \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 10,326 | 616 | 262.7 | 234\% | 5.97\% | 2.54\% |
| 2005 | 10,532 | 553 | 267.2 | 207\% | 5.25\% | 2.54\% |
| 2006 | 11,047 | 516 | 283.0 | 182\% | 4.67\% | 2.56\% |
| 2007 | 12,218 | 548 | 317.4 | 173\% | 4.49\% | 2.60\% |
| 2008 | 13,094 | 554 | 347.4 | 159\% | 4.23\% | 2.65\% |
| 2009 | 13,526 | 782 | 363.0 | 215\% | 5.78\% | 2.68\% |
| 2010 | 13,577 | 794 | 358.7 | 221\% | 5.85\% | 2.64\% |
| 2011 | 13,228 | 528 | 334.9 | 158\% | 3.99\% | 2.53\% |
| 2012 | 12,979 | 419 | 333.3 | 126\% | 3.23\% | 2.57\% |
| 2013 | 13,027 | 297 | 336.3 | 88\% | 2.28\% | 2.58\% |
| Total | 123,554 | 5,607 | 3,203.7 | 175\% | 4.54\% | 2.59\% |

The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 40 .

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK
ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN

|  | TABLE 8A |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013 <br> Expected Deaths <br> Actual/ Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 1 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 16 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 36 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 274 | 0.00000 | 0.040\% | 0.040\% | 0.1 | 0.1 | 0\% | 0\% |
| 24 | 0 | 667 | 0.00000 | 0.040\% | 0.040\% | 0.3 | 0.3 | 0\% | 0\% |
| 25 | 0 | 1,145 | 0.00000 | 0.040\% | 0.040\% | 0.5 | 0.5 | 0\% | 0\% |
| 26 | 0 | 1,483 | 0.00000 | 0.040\% | 0.040\% | 0.6 | 0.6 | 0\% | 0\% |
| 27 | 1 | 1,882 | 0.00053 | 0.040\% | 0.040\% | 0.8 | 0.8 | 133\% | 133\% |
| 28 | 1 | 2,261 | 0.00044 | 0.040\% | 0.040\% | 0.9 | 0.9 | 111\% | 111\% |
| 29 | 0 | 2,497 | 0.00000 | 0.040\% | 0.040\% | 1.0 | 1.0 | 0\% | 0\% |
| 30 | 1 | 2,715 | 0.00037 | 0.040\% | 0.040\% | 1.1 | 1.1 | 92\% | 92\% |
| 31 | 0 | 2,851 | 0.00000 | 0.042\% | 0.042\% | 1.2 | 1.2 | 0\% | 0\% |
| 32 | 1 | 2,901 | 0.00034 | 0.044\% | 0.044\% | 1.3 | 1.3 | 78\% | 78\% |
| 33 | 0 | 2,925 | 0.00000 | 0.046\% | 0.046\% | 1.3 | 1.3 | 0\% | 0\% |
| 34 | 0 | 2,819 | 0.00000 | 0.048\% | 0.048\% | 1.4 | 1.4 | 0\% | 0\% |
| 35 | 0 | 2,804 | 0.00000 | 0.050\% | 0.050\% | 1.4 | 1.4 | 0\% | 0\% |
| 36 | 0 | 2,728 | 0.00000 | 0.052\% | 0.052\% | 1.4 | 1.4 | 0\% | 0\% |
| 37 | 0 | 2,746 | 0.00000 | 0.054\% | 0.054\% | 1.5 | 1.5 | 0\% | 0\% |
| 38 | 1 | 2,622 | 0.00038 | 0.056\% | 0.056\% | 1.5 | 1.5 | 68\% | 68\% |
| 39 | 0 | 2,682 | 0.00000 | 0.058\% | 0.058\% | 1.6 | 1.6 | 0\% | 0\% |
| 40 | 2 | 2,716 | 0.00074 | 0.060\% | 0.060\% | 1.6 | 1.6 | 123\% | 123\% |
| 41 | 0 | 2,752 | 0.00000 | 0.070\% | 0.070\% | 1.9 | 1.9 | 0\% | 0\% |
| 42 | 1 | 2,636 | 0.00038 | 0.080\% | 0.080\% | 2.1 | 2.1 | 47\% | 47\% |
| 43 | 5 | 2,560 | 0.00195 | 0.090\% | 0.090\% | 2.3 | 2.3 | 217\% | 217\% |
| 44 | 5 | 2,440 | 0.00205 | 0.100\% | 0.100\% | 2.4 | 2.4 | 205\% | 205\% |
| 45 | 2 | 2,402 | 0.00083 | 0.110\% | 0.110\% | 2.6 | 2.6 | 76\% | 76\% |
| 46 | 2 | 2,360 | 0.00085 | 0.120\% | 0.120\% | 2.8 | 2.8 | 71\% | 71\% |
| 47 | 5 | 2,406 | 0.00208 | 0.130\% | 0.130\% | 3.1 | 3.1 | 160\% | 160\% |
| 48 | 2 | 2,459 | 0.00081 | 0.140\% | 0.140\% | 3.4 | 3.4 | 58\% | 58\% |
| 49 | 1 | 2,481 | 0.00040 | 0.150\% | 0.150\% | 3.7 | 3.7 | 27\% | 27\% |
| 50 | 4 | 2,418 | 0.00165 | 0.160\% | 0.160\% | 3.9 | 3.9 | 103\% | 103\% |
| 51 | 3 | 2,458 | 0.00122 | 0.170\% | 0.170\% | 4.2 | 4.2 | 72\% | 72\% |
| 52 | 8 | 2,525 | 0.00317 | 0.180\% | 0.180\% | 4.5 | 4.5 | 176\% | 176\% |
| 53 | 2 | 2,532 | 0.00079 | 0.190\% | 0.190\% | 4.8 | 4.8 | 42\% | 42\% |
| 54 | 9 | 2,599 | 0.00346 | 0.200\% | 0.200\% | 5.2 | 5.2 | 173\% | 173\% |
| 55 | 1 | 2,705 | 0.00037 | 0.210\% | 0.210\% | 5.7 | 5.7 | 18\% | 18\% |
| 56 | 3 | 2,613 | 0.00115 | 0.220\% | 0.220\% | 5.7 | 5.7 | 52\% | 52\% |
| 57 | 10 | 2,437 | 0.00410 | 0.230\% | 0.230\% | 5.6 | 5.6 | 178\% | 178\% |
| 58 | 7 | 2,457 | 0.00285 | 0.240\% | 0.240\% | 5.9 | 5.9 | 119\% | 119\% |
| 59 | 5 | 2,293 | 0.00218 | 0.250\% | 0.250\% | 5.7 | 5.7 | 87\% | 87\% |
| 60 | 7 | 2,247 | 0.00312 | 0.260\% | 0.260\% | 5.8 | 5.8 | 120\% | 120\% |
| 61 | 9 | 2,105 | 0.00428 | 0.270\% | 0.270\% | 5.7 | 5.7 | 158\% | 158\% |
| 62 | 3 | 1,962 | 0.00153 | 0.280\% | 0.280\% | 5.5 | 5.5 | 55\% | 55\% |
| 63 | 6 | 1,596 | 0.00376 | 0.290\% | 0.290\% | 4.6 | 4.6 | 130\% | 130\% |
| 64 | 5 | 1,328 | 0.00377 | 0.300\% | 0.300\% | 4.0 | 4.0 | 126\% | 126\% |
| 65 | 5 | 1,059 | 0.00472 | 0.320\% | 0.320\% | 3.4 | 3.4 | 148\% | 148\% |
| 66 | 2 | 841 | 0.00238 | 0.350\% | 0.350\% | 2.9 | 2.9 | 68\% | 68\% |
| 67 | 1 | 618 | 0.00162 | 0.390\% | 0.390\% | 2.4 | 2.4 | 41\% | 41\% |
| 68 | 2 | 478 | 0.00418 | 0.440\% | 0.440\% | 2.1 | 2.1 | 95\% | 95\% |
| 69 | 2 | 380 | 0.00526 | 0.500\% | 0.500\% | 1.9 | 1.9 | 105\% | 105\% |
| 70 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| Total | 124 | 100,918 |  |  |  | 133.5 | 133.5 | 93\% | 93\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK
ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS women

| Age | TABLE 8B |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected (3) $\times$ (5) | Proposed (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 8 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 28 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 109 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 923 | 0.00000 | 0.020\% | 0.020\% | 0.2 | 0.2 | 0\% | 0\% |
| 24 | 0 | 2,431 | 0.00000 | 0.020\% | 0.020\% | 0.5 | 0.5 | 0\% | 0\% |
| 25 | 1 | 4,336 | 0.00023 | 0.020\% | 0.020\% | 0.9 | 0.9 | 115\% | 115\% |
| 26 | 1 | 6,108 | 0.00016 | 0.020\% | 0.020\% | 1.2 | 1.2 | 82\% | 82\% |
| 27 | 1 | 7,645 | 0.00013 | 0.020\% | 0.020\% | 1.5 | 1.5 | 65\% | 65\% |
| 28 | 1 | 8,866 | 0.00011 | 0.020\% | 0.020\% | 1.8 | 1.8 | 56\% | 56\% |
| 29 | 1 | 9,648 | 0.00010 | 0.020\% | 0.020\% | 1.9 | 1.9 | 52\% | 52\% |
| 30 | 3 | 10,147 | 0.00030 | 0.020\% | 0.020\% | 2.0 | 2.0 | 148\% | 148\% |
| 31 | 0 | 9,987 | 0.00000 | 0.021\% | 0.021\% | 2.1 | 2.1 | 0\% | 0\% |
| 32 | 0 | 9,592 | 0.00000 | 0.022\% | 0.022\% | 2.1 | 2.1 | 0\% | 0\% |
| 33 | 0 | 9,365 | 0.00000 | 0.023\% | 0.023\% | 2.2 | 2.2 | 0\% | 0\% |
| 34 | 1 | 8,920 | 0.00011 | 0.024\% | 0.024\% | 2.1 | 2.1 | 47\% | 47\% |
| 35 | 1 | 8,718 | 0.00011 | 0.025\% | 0.025\% | 2.2 | 2.2 | 46\% | 46\% |
| 36 | 0 | 8,378 | 0.00000 | 0.026\% | 0.026\% | 2.2 | 2.2 | 0\% | 0\% |
| 37 | 3 | 8,193 | 0.00037 | 0.027\% | 0.027\% | 2.2 | 2.2 | 136\% | 136\% |
| 38 | 2 | 8,032 | 0.00025 | 0.028\% | 0.028\% | 2.2 | 2.2 | 89\% | 89\% |
| 39 | 4 | 7,997 | 0.00050 | 0.029\% | 0.029\% | 2.3 | 2.3 | 172\% | 172\% |
| 40 | 2 | 8,050 | 0.00025 | 0.030\% | 0.030\% | 2.4 | 2.4 | 83\% | 83\% |
| 41 | 6 | 7,988 | 0.00075 | 0.035\% | 0.035\% | 2.8 | 2.8 | 215\% | 215\% |
| 42 | 2 | 7,989 | 0.00025 | 0.040\% | 0.040\% | 3.2 | 3.2 | 63\% | 63\% |
| 43 | 2 | 7,747 | 0.00026 | 0.045\% | 0.045\% | 3.5 | 3.5 | 57\% | 57\% |
| 44 | 5 | 7,643 | 0.00065 | 0.050\% | 0.050\% | 3.8 | 3.8 | 131\% | 131\% |
| 45 | 5 | 7,706 | 0.00065 | 0.055\% | 0.055\% | 4.2 | 4.2 | 118\% | 118\% |
| 46 | 4 | 7,691 | 0.00052 | 0.060\% | 0.060\% | 4.6 | 4.6 | 87\% | 87\% |
| 47 | 2 | 7,837 | 0.00026 | 0.065\% | 0.065\% | 5.1 | 5.1 | 39\% | 39\% |
| 48 | 4 | 8,139 | 0.00049 | 0.070\% | 0.070\% | 5.7 | 5.7 | 70\% | 70\% |
| 49 | 4 | 8,212 | 0.00049 | 0.075\% | 0.075\% | 6.2 | 6.2 | 65\% | 65\% |
| 50 | 4 | 8,330 | 0.00048 | 0.080\% | 0.080\% | 6.7 | 6.7 | 60\% | 60\% |
| 51 | 7 | 8,513 | 0.00082 | 0.085\% | 0.085\% | 7.2 | 7.2 | 97\% | 97\% |
| 52 | 9 | 8,818 | 0.00102 | 0.090\% | 0.090\% | 7.9 | 7.9 | 113\% | 113\% |
| 53 | 8 | 9,010 | 0.00089 | 0.095\% | 0.095\% | 8.6 | 8.6 | 93\% | 93\% |
| 54 | 17 | 9,355 | 0.00182 | 0.100\% | 0.100\% | 9.4 | 9.4 | 182\% | 182\% |
| 55 | 9 | 9,621 | 0.00094 | 0.105\% | 0.105\% | 10.1 | 10.1 | 89\% | 89\% |
| 56 | 10 | 9,554 | 0.00105 | 0.110\% | 0.110\% | 10.5 | 10.5 | 95\% | 95\% |
| 57 | 6 | 9,169 | 0.00065 | 0.115\% | 0.115\% | 10.5 | 10.5 | 57\% | 57\% |
| 58 | 14 | 9,048 | 0.00155 | 0.120\% | 0.120\% | 10.9 | 10.9 | 129\% | 129\% |
| 59 | 12 | 8,651 | 0.00139 | 0.125\% | 0.125\% | 10.8 | 10.8 | 111\% | 111\% |
| 60 | 17 | 8,214 | 0.00207 | 0.130\% | 0.130\% | 10.7 | 10.7 | 159\% | 159\% |
| 61 | 16 | 7,401 | 0.00216 | 0.135\% | 0.135\% | 10.0 | 10.0 | 160\% | 160\% |
| 62 | 10 | 6,636 | 0.00151 | 0.140\% | 0.140\% | 9.3 | 9.3 | 108\% | 108\% |
| 63 | 11 | 5,389 | 0.00204 | 0.145\% | 0.145\% | 7.8 | 7.8 | 141\% | 141\% |
| 64 | 5 | 4,215 | 0.00119 | 0.150\% | 0.150\% | 6.3 | 6.3 | 79\% | 79\% |
| 65 | 3 | 3,305 | 0.00091 | 0.160\% | 0.160\% | 5.3 | 5.3 | 57\% | 57\% |
| 66 | 4 | 2,557 | 0.00156 | 0.175\% | 0.175\% | 4.5 | 4.5 | 89\% | 89\% |
| 67 | 7 | 1,836 | 0.00381 | 0.195\% | 0.195\% | 3.6 | 3.6 | 196\% | 196\% |
| 68 | 4 | 1,381 | 0.00290 | 0.220\% | 0.220\% | 3.0 | 3.0 | 132\% | 132\% |
| 69 | 6 | 1,043 | 0.00575 | 0.250\% | 0.250\% | 2.6 | 2.6 | 230\% | 230\% |
| 70 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Total | 234 | 340,479 |  |  |  | 226.9 | 226.9 | 103\% | 103\% |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS

|  | TABLE 8A GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 994 | 0.00000 | 0.040\% | 0.040\% | 0.4 | 0.4 | 0\% | 0\% |
| 25-29 | 2 | 9,268 | 0.00022 | 0.040\% | 0.040\% | 3.7 | 3.7 | 54\% | 54\% |
| 30-34 | 2 | 14,211 | 0.00014 | 0.044\% | 0.044\% | 6.3 | 6.3 | 32\% | 32\% |
| 35-39 | 1 | 13,582 | 0.00007 | 0.054\% | 0.054\% | 7.3 | 7.3 | 14\% | 14\% |
| 40-44 | 13 | 13,104 | 0.00099 | 0.079\% | 0.079\% | 10.4 | 10.4 | 125\% | 125\% |
| 45-49 | 12 | 12,108 | 0.00099 | 0.130\% | 0.130\% | 15.8 | 15.8 | 76\% | 76\% |
| 50-54 | 26 | 12,532 | 0.00207 | 0.180\% | 0.180\% | 22.6 | 22.6 | 115\% | 115\% |
| 55-59 | 26 | 12,505 | 0.00208 | 0.229\% | 0.229\% | 28.7 | 28.7 | 91\% | 91\% |
| 60-64 | 30 | 9,238 | 0.00325 | 0.277\% | 0.277\% | 25.6 | 25.6 | 117\% | 117\% |
| 65-69 | 12 | 3,376 | 0.00355 | 0.378\% | 0.378\% | 12.7 | 12.7 | 94\% | 94\% |
| 70-74 | 0 | 0 | N/A | 0.000\% |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.000\% |  | 0 | 0 | 0\% | 0\% |
| Total | 124 | 100,918 |  |  |  | 133.5 | 133.5 | 93\% | 93\% |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

|  | TABLE 8B GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 3,499 | 0.00000 | 0.020\% | 0.020\% | 0.7 | 0.7 | 0\% | 0\% |
| 25-29 | 5 | 36,603 | 0.00014 | 0.020\% | 0.020\% | 7.3 | 7.3 | 68\% | 68\% |
| 30-34 | 4 | 48,011 | 0.00008 | 0.022\% | 0.022\% | 10.5 | 10.5 | 38\% | 38\% |
| 35-39 | 10 | 41,318 | 0.00024 | 0.027\% | 0.027\% | 11.1 | 11.1 | 90\% | 90\% |
| 40-44 | 17 | 39,417 | 0.00043 | 0.040\% | 0.040\% | 15.7 | 15.7 | 108\% | 108\% |
| 45-49 | 19 | 39,585 | 0.00048 | 0.065\% | 0.065\% | 25.8 | 25.8 | 74\% | 74\% |
| 50-54 | 45 | 44,026 | 0.00102 | 0.090\% | 0.090\% | 39.8 | 39.8 | 113\% | 113\% |
| 55-59 | 51 | 46,043 | 0.00111 | 0.115\% | 0.115\% | 52.8 | 52.8 | 97\% | 97\% |
| 60-64 | 59 | 31,855 | 0.00185 | 0.138\% | 0.138\% | 44.1 | 44.1 | 134\% | 134\% |
| 65-69 | 24 | 10,122 | 0.00237 | 0.188\% | 0.188\% | 19.0 | 19.0 | 126\% | 126\% |
| 70-74 | 0 | 0 | N/A | 0.000\% |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.000\% |  | 0 | 0 | 0\% | 0\% |
| Total | 234 | 340,479 |  |  |  | 226.9 | 226.9 | 103\% | 103\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK
ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN

| Age | TABLE 8A |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times$ (5) | Proposed <br> (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 12 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 41 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 112 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 1 | 1,328 | 0.00075 | 0.040\% | 0.040\% | 0.5 | 0.5 | 188\% | 188\% |
| 24 | 0 | 2,582 | 0.00000 | 0.040\% | 0.040\% | 1.0 | 1.0 | 0\% | 0\% |
| 25 | 0 | 3,638 | 0.00000 | 0.040\% | 0.040\% | 1.5 | 1.5 | 0\% | 0\% |
| 26 | 1 | 4,418 | 0.00023 | 0.040\% | 0.040\% | 1.8 | 1.8 | 57\% | 57\% |
| 27 | 2 | 5,140 | 0.00039 | 0.040\% | 0.040\% | 2.1 | 2.1 | 97\% | 97\% |
| 28 | 2 | 5,678 | 0.00035 | 0.040\% | 0.040\% | 2.3 | 2.3 | 88\% | 88\% |
| 29 | 0 | 6,025 | 0.00000 | 0.040\% | 0.040\% | 2.4 | 2.4 | 0\% | 0\% |
| 30 | 3 | 6,233 | 0.00048 | 0.040\% | 0.040\% | 2.5 | 2.5 | 120\% | 120\% |
| 31 | 0 | 6,424 | 0.00000 | 0.042\% | 0.042\% | 2.7 | 2.7 | 0\% | 0\% |
| 32 | 2 | 6,548 | 0.00031 | 0.044\% | 0.044\% | 2.9 | 2.9 | 69\% | 69\% |
| 33 | 0 | 6,571 | 0.00000 | 0.046\% | 0.046\% | 3.0 | 3.0 | 0\% | 0\% |
| 34 | 4 | 6,539 | 0.00061 | 0.048\% | 0.048\% | 3.1 | 3.1 | 127\% | 127\% |
| 35 | 0 | 6,504 | 0.00000 | 0.050\% | 0.050\% | 3.3 | 3.3 | 0\% | 0\% |
| 36 | 0 | 6,441 | 0.00000 | 0.052\% | 0.052\% | 3.3 | 3.3 | 0\% | 0\% |
| 37 | 1 | 6,425 | 0.00016 | 0.054\% | 0.054\% | 3.5 | 3.5 | 29\% | 29\% |
| 38 | 5 | 6,162 | 0.00081 | 0.056\% | 0.056\% | 3.5 | 3.5 | 145\% | 145\% |
| 39 | 2 | 6,123 | 0.00033 | 0.058\% | 0.058\% | 3.6 | 3.6 | 56\% | 56\% |
| 40 | 5 | 6,072 | 0.00082 | 0.060\% | 0.060\% | 3.6 | 3.6 | 137\% | 137\% |
| 41 | 3 | 6,020 | 0.00050 | 0.070\% | 0.070\% | 4.2 | 4.2 | 71\% | 71\% |
| 42 | 3 | 5,955 | 0.00050 | 0.080\% | 0.080\% | 4.8 | 4.8 | 63\% | 63\% |
| 43 | 8 | 5,929 | 0.00135 | 0.090\% | 0.090\% | 5.3 | 5.3 | 150\% | 150\% |
| 44 | 8 | 5,884 | 0.00136 | 0.100\% | 0.100\% | 5.9 | 5.9 | 136\% | 136\% |
| 45 | 6 | 5,863 | 0.00102 | 0.110\% | 0.110\% | 6.4 | 6.4 | 93\% | 93\% |
| 46 | 7 | 5,960 | 0.00117 | 0.120\% | 0.120\% | 7.2 | 7.2 | 98\% | 98\% |
| 47 | 12 | 6,103 | 0.00197 | 0.130\% | 0.130\% | 7.9 | 7.9 | 151\% | 151\% |
| 48 | 7 | 6,198 | 0.00113 | 0.140\% | 0.140\% | 8.7 | 8.7 | 81\% | 81\% |
| 49 | 5 | 6,271 | 0.00080 | 0.150\% | 0.150\% | 9.4 | 9.4 | 53\% | 53\% |
| 50 | 10 | 6,349 | 0.00158 | 0.160\% | 0.160\% | 10.2 | 10.2 | 98\% | 98\% |
| 51 | 10 | 6,539 | 0.00153 | 0.170\% | 0.170\% | 11.1 | 11.1 | 90\% | 90\% |
| 52 | 23 | 6,795 | 0.00338 | 0.180\% | 0.180\% | 12.2 | 12.2 | 188\% | 188\% |
| 53 | 16 | 7,101 | 0.00225 | 0.190\% | 0.190\% | 13.5 | 13.5 | 119\% | 119\% |
| 54 | 19 | 7,537 | 0.00252 | 0.200\% | 0.200\% | 15.1 | 15.1 | 126\% | 126\% |
| 55 | 10 | 8,159 | 0.00123 | 0.210\% | 0.210\% | 17.1 | 17.1 | 58\% | 58\% |
| 56 | 16 | 7,647 | 0.00209 | 0.220\% | 0.220\% | 16.8 | 16.8 | 95\% | 95\% |
| 57 | 21 | 7,017 | 0.00299 | 0.230\% | 0.230\% | 16.1 | 16.1 | 130\% | 130\% |
| 58 | 18 | 6,441 | 0.00279 | 0.240\% | 0.240\% | 15.5 | 15.5 | 116\% | 116\% |
| 59 | 16 | 5,733 | 0.00279 | 0.250\% | 0.250\% | 14.3 | 14.3 | 112\% | 112\% |
| 60 | 13 | 5,184 | 0.00251 | 0.260\% | 0.260\% | 13.5 | 13.5 | 96\% | 96\% |
| 61 | 27 | 4,537 | 0.00595 | 0.270\% | 0.270\% | 12.2 | 12.2 | 220\% | 220\% |
| 62 | 14 | 3,883 | 0.00361 | 0.280\% | 0.280\% | 10.9 | 10.9 | 129\% | 129\% |
| 63 | 17 | 3,086 | 0.00551 | 0.290\% | 0.290\% | 8.9 | 8.9 | 190\% | 190\% |
| 64 | 8 | 2,553 | 0.00313 | 0.300\% | 0.300\% | 7.7 | 7.7 | 104\% | 104\% |
| 65 | 10 | 2,061 | 0.00485 | 0.320\% | 0.320\% | 6.6 | 6.6 | 152\% | 152\% |
| 66 | 6 | 1,611 | 0.00372 | 0.350\% | 0.350\% | 5.6 | 5.6 | 106\% | 106\% |
| 67 | 6 | 1,235 | 0.00486 | 0.390\% | 0.390\% | 4.8 | 4.8 | 125\% | 125\% |
| 68 | 7 | 977 | 0.00716 | 0.440\% | 0.440\% | 4.3 | 4.3 | 163\% | 163\% |
| 69 | 2 | 771 | 0.00259 | 0.500\% | 0.500\% | 3.9 | 3.9 | 52\% | 52\% |
| 70 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | N/A | N/A | 0 | 0 | 0\% | 0\% |
| Total | 356 | 248,415 |  |  |  | 326.7 | 326.7 | 109\% | 109\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK
ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS women

| Age | TABLE 8B |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 25 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 83 | 0.00000 | 0.020\% | 0.020\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 424 | 0.00000 | 0.020\% | 0.020\% | 0.1 | 0.1 | 0\% | 0\% |
| 23 | 0 | 5,603 | 0.00000 | 0.020\% | 0.020\% | 1.1 | 1.1 | 0\% | 0\% |
| 24 | 3 | 10,730 | 0.00028 | 0.020\% | 0.020\% | 2.1 | 2.1 | 140\% | 140\% |
| 25 | 2 | 15,043 | 0.00013 | 0.020\% | 0.020\% | 3.0 | 3.0 | 66\% | 66\% |
| 26 | 4 | 18,346 | 0.00022 | 0.020\% | 0.020\% | 3.7 | 3.7 | 109\% | 109\% |
| 27 | 1 | 20,664 | 0.00005 | 0.020\% | 0.020\% | 4.1 | 4.1 | 24\% | 24\% |
| 28 | 6 | 22,219 | 0.00027 | 0.020\% | 0.020\% | 4.4 | 4.4 | 135\% | 135\% |
| 29 | 6 | 22,981 | 0.00026 | 0.020\% | 0.020\% | 4.6 | 4.6 | 131\% | 131\% |
| 30 | 6 | 22,914 | 0.00026 | 0.020\% | 0.020\% | 4.6 | 4.6 | 131\% | 131\% |
| 31 | 2 | 22,461 | 0.00009 | 0.021\% | 0.021\% | 4.7 | 4.7 | 42\% | 42\% |
| 32 | 5 | 21,743 | 0.00023 | 0.022\% | 0.022\% | 4.8 | 4.8 | 105\% | 105\% |
| 33 | 0 | 21,154 | 0.00000 | 0.023\% | 0.023\% | 4.9 | 4.9 | 0\% | 0\% |
| 34 | 7 | 20,426 | 0.00034 | 0.024\% | 0.024\% | 4.9 | 4.9 | 143\% | 143\% |
| 35 | 3 | 19,782 | 0.00015 | 0.025\% | 0.025\% | 4.9 | 4.9 | 61\% | 61\% |
| 36 | 4 | 19,208 | 0.00021 | 0.026\% | 0.026\% | 5.0 | 5.0 | 80\% | 80\% |
| 37 | 5 | 18,688 | 0.00027 | 0.027\% | 0.027\% | 5.0 | 5.0 | 99\% | 99\% |
| 38 | 5 | 18,210 | 0.00027 | 0.028\% | 0.028\% | 5.1 | 5.1 | 98\% | 98\% |
| 39 | 11 | 17,864 | 0.00062 | 0.029\% | 0.029\% | 5.2 | 5.2 | 212\% | 212\% |
| 40 | 6 | 17,976 | 0.00033 | 0.030\% | 0.030\% | 5.4 | 5.4 | 111\% | 111\% |
| 41 | 15 | 18,093 | 0.00083 | 0.035\% | 0.035\% | 6.3 | 6.3 | 237\% | 237\% |
| 42 | 12 | 18,442 | 0.00065 | 0.040\% | 0.040\% | 7.4 | 7.4 | 163\% | 163\% |
| 43 | 6 | 18,428 | 0.00033 | 0.045\% | 0.045\% | 8.3 | 8.3 | 72\% | 72\% |
| 44 | 17 | 18,631 | 0.00091 | 0.050\% | 0.050\% | 9.3 | 9.3 | 182\% | 182\% |
| 45 | 7 | 18,992 | 0.00037 | 0.055\% | 0.055\% | 10.4 | 10.4 | 67\% | 67\% |
| 46 | 18 | 19,457 | 0.00093 | 0.060\% | 0.060\% | 11.7 | 11.7 | 154\% | 154\% |
| 47 | 13 | 20,152 | 0.00065 | 0.065\% | 0.065\% | 13.1 | 13.1 | 99\% | 99\% |
| 48 | 7 | 20,941 | 0.00033 | 0.070\% | 0.070\% | 14.7 | 14.7 | 48\% | 48\% |
| 49 | 22 | 21,606 | 0.00102 | 0.075\% | 0.075\% | 16.2 | 16.2 | 136\% | 136\% |
| 50 | 30 | 22,276 | 0.00135 | 0.080\% | 0.080\% | 17.8 | 17.8 | 168\% | 168\% |
| 51 | 25 | 23,149 | 0.00108 | 0.085\% | 0.085\% | 19.7 | 19.7 | 127\% | 127\% |
| 52 | 30 | 24,079 | 0.00125 | 0.090\% | 0.090\% | 21.7 | 21.7 | 138\% | 138\% |
| 53 | 34 | 24,917 | 0.00136 | 0.095\% | 0.095\% | 23.7 | 23.7 | 144\% | 144\% |
| 54 | 37 | 26,075 | 0.00142 | 0.100\% | 0.100\% | 26.1 | 26.1 | 142\% | 142\% |
| 55 | 34 | 26,945 | 0.00126 | 0.105\% | 0.105\% | 28.3 | 28.3 | 120\% | 120\% |
| 56 | 37 | 25,373 | 0.00146 | 0.110\% | 0.110\% | 27.9 | 27.9 | 133\% | 133\% |
| 57 | 24 | 23,368 | 0.00103 | 0.115\% | 0.115\% | 26.9 | 26.9 | 89\% | 89\% |
| 58 | 34 | 21,510 | 0.00158 | 0.120\% | 0.120\% | 25.8 | 25.8 | 132\% | 132\% |
| 59 | 36 | 19,410 | 0.00185 | 0.125\% | 0.125\% | 24.3 | 24.3 | 148\% | 148\% |
| 60 | 30 | 17,564 | 0.00171 | 0.130\% | 0.130\% | 22.8 | 22.8 | 131\% | 131\% |
| 61 | 37 | 15,419 | 0.00240 | 0.135\% | 0.135\% | 20.8 | 20.8 | 178\% | 178\% |
| 62 | 27 | 13,390 | 0.00202 | 0.140\% | 0.140\% | 18.7 | 18.7 | 144\% | 144\% |
| 63 | 30 | 10,432 | 0.00288 | 0.145\% | 0.145\% | 15.1 | 15.1 | 198\% | 198\% |
| 64 | 16 | 8,253 | 0.00194 | 0.150\% | 0.150\% | 12.4 | 12.4 | 129\% | 129\% |
| 65 | 25 | 6,598 | 0.00379 | 0.160\% | 0.160\% | 10.6 | 10.6 | 237\% | 237\% |
| 66 | 20 | 5,033 | 0.00397 | 0.175\% | 0.175\% | 8.8 | 8.8 | 227\% | 227\% |
| 67 | 22 | 3,676 | 0.00598 | 0.195\% | 0.195\% | 7.2 | 7.2 | 307\% | 307\% |
| 68 | 7 | 2,796 | 0.00250 | 0.220\% | 0.220\% | 6.2 | 6.2 | 114\% | 114\% |
| 69 | 11 | 2,136 | 0.00515 | 0.250\% | 0.250\% | 5.3 | 5.3 | 206\% | 206\% |
| 70 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.000\% | 0.000\% | 0 | 0 | 0\% | 0\% |
| Total | 739 | 833,685 |  |  |  | 545.1 | 545.1 | 136\% | 136\% |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS

 MEN|  | TABLE 8A GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 1 | 4,075 | 0.00025 | 0.040\% | 0.040\% | 1.6 | 1.6 | 61\% | 61\% |
| 25-29 | 5 | 24,899 | 0.00020 | 0.040\% | 0.040\% | 10.0 | 10.0 | 50\% | 50\% |
| 30-34 | 9 | 32,315 | 0.00028 | 0.044\% | 0.044\% | 14.2 | 14.2 | 63\% | 63\% |
| 35-39 | 8 | 31,655 | 0.00025 | 0.054\% | 0.054\% | 17.1 | 17.1 | 47\% | 47\% |
| 40-44 | 27 | 29,860 | 0.00090 | 0.080\% | 0.080\% | 23.8 | 23.8 | 113\% | 113\% |
| 45-49 | 37 | 30,395 | 0.00122 | 0.130\% | 0.130\% | 39.6 | 39.6 | 93\% | 93\% |
| 50-54 | 78 | 34,321 | 0.00227 | 0.181\% | 0.181\% | 62.1 | 62.1 | 126\% | 126\% |
| 55-59 | 81 | 34,997 | 0.00231 | 0.228\% | 0.228\% | 79.9 | 79.9 | 101\% | 101\% |
| 60-64 | 79 | 19,243 | 0.00411 | 0.277\% | 0.277\% | 53.2 | 53.2 | 148\% | 148\% |
| 65-69 | 31 | 6,655 | 0.00466 | 0.379\% | 0.379\% | 25.2 | 25.2 | 123\% | 123\% |
| 70-74 | 0 | 0 | N/A | 0.000\% |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.000\% |  | 0 | 0 | 0\% | 0\% |
| Total | 356 | 248,415 |  |  |  | 326.7 | 326.7 | 109\% | 109\% |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS women

|  | TABLE 8B GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 3 | 16,865 | 0.00018 | 0.020\% | 0.020\% | 3.4 | 3.4 | 89\% | 89\% |
| 25-29 | 19 | 99,253 | 0.00019 | 0.020\% | 0.020\% | 19.9 | 19.9 | 96\% | 96\% |
| 30-34 | 20 | 108,698 | 0.00018 | 0.022\% | 0.022\% | 23.9 | 23.9 | 84\% | 84\% |
| 35-39 | 28 | 93,752 | 0.00030 | 0.027\% | 0.027\% | 25.3 | 25.3 | 111\% | 111\% |
| 40-44 | 56 | 91,570 | 0.00061 | 0.040\% | 0.040\% | 36.7 | 36.7 | 153\% | 153\% |
| 45-49 | 67 | 101,148 | 0.00066 | 0.065\% | 0.065\% | 66.1 | 66.1 | 101\% | 101\% |
| 50-54 | 156 | 120,496 | 0.00129 | 0.090\% | 0.090\% | 108.9 | 108.9 | 143\% | 143\% |
| 55-59 | 165 | 116,606 | 0.00142 | 0.114\% | 0.114\% | 133.2 | 133.2 | 124\% | 124\% |
| 60-64 | 140 | 65,058 | 0.00215 | 0.138\% | 0.138\% | 89.9 | 89.9 | 156\% | 156\% |
| 65-69 | 85 | 20,239 | 0.00420 | 0.188\% | 0.188\% | 38.0 | 38.0 | 224\% | 224\% |
| 70-74 | 0 | 0 | N/A | 0.000\% |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.000\% |  | 0 | 0 | 0\% | 0\% |
| Total | 739 | 833,685 |  |  |  | 545.1 | 545.1 | 136\% | 136\% |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Plan <br> Year | TABLE 8C |  |  | 0-YEAR PER | Mortality Rate |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending <br> June 30, | Life Years Exposed | Actual Deaths | Expected Deaths | Actual/ <br> Expected | $\begin{aligned} & \text { Actual } \\ & (3) /(2) \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 97,941 | 109 | 82.9 | 131\% | 0.111\% | 0.085\% |
| 2005 | 105,685 | 129 | 84.3 | 153\% | 0.122\% | 0.080\% |
| 2006 | 106,017 | 134 | 83.9 | 160\% | 0.126\% | 0.079\% |
| 2007 | 110,383 | 155 | 86.3 | 180\% | 0.140\% | 0.078\% |
| 2008 | 109,319 | 132 | 86.2 | 153\% | 0.121\% | 0.079\% |
| 2009 | 111,368 | 127 | 87.8 | 145\% | 0.114\% | 0.079\% |
| 2010 | 111,875 | 91 | 88.7 | 103\% | 0.081\% | 0.079\% |
| 2011 | 110,187 | 91 | 90.6 | 100\% | 0.083\% | 0.082\% |
| 2012 | 108,326 | 96 | 89.7 | 107\% | 0.089\% | 0.083\% |
| 2013 | 111,009 | 99 | 91.4 | 108\% | 0.089\% | 0.082\% |
| Total | 1,082,110 | 1,163 | 871.9 | 133\% | 0.107\% | 0.081\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK
ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN

|  | TABLE 9A |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2011 <br> Expected Disabilities Actual/ Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } / \text { (3) } \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.01\% | 0.02\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.01\% | 0.02\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.01\% | 0.02\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 0 | N/A | 0.01\% | 0.02\% | 0 | 0 | 0\% | 0\% |
| 24 | 0 | 0 | N/A | 0.01\% | 0.02\% | 0 | 0 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.01\% | 0.02\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 0 | N/A | 0.01\% | 0.02\% | 0 | 0 | 0\% | 0\% |
| 27 | 0 | 1 | 0.0000 | 0.01\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 28 | 0 | 3 | 0.0000 | 0.01\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 29 | 0 | 2 | 0.0000 | 0.01\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 30 | 0 | 6 | 0.0000 | 0.01\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 31 | 0 | 12 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 32 | 0 | 65 | 0.0000 | 0.03\% | 0.05\% | 0.0 | 0.0 | 0\% | 0\% |
| 33 | 0 | 159 | 0.0000 | 0.04\% | 0.07\% | 0.1 | 0.1 | 0\% | 0\% |
| 34 | 0 | 245 | 0.0000 | 0.05\% | 0.09\% | 0.1 | 0.2 | 0\% | 0\% |
| 35 | 0 | 357 | 0.0000 | 0.06\% | 0.11\% | 0.2 | 0.4 | 0\% | 0\% |
| 36 | 0 | 497 | 0.0000 | 0.07\% | 0.12\% | 0.3 | 0.6 | 0\% | 0\% |
| 37 | 0 | 618 | 0.0000 | 0.08\% | 0.13\% | 0.5 | 0.8 | 0\% | 0\% |
| 38 | 1 | 773 | 0.0013 | 0.08\% | 0.15\% | 0.6 | 1.1 | 154\% | 88\% |
| 39 | 1 | 864 | 0.0012 | 0.09\% | 0.16\% | 0.8 | 1.4 | 126\% | 72\% |
| 40 | 1 | 938 | 0.0011 | 0.10\% | 0.18\% | 0.9 | 1.6 | 107\% | 61\% |
| 41 | 0 | 973 | 0.0000 | 0.11\% | 0.19\% | 1.1 | 1.9 | 0\% | 0\% |
| 42 | 0 | 976 | 0.0000 | 0.12\% | 0.21\% | 1.2 | 2.0 | 0\% | 0\% |
| 43 | 2 | 1,032 | 0.0019 | 0.13\% | 0.23\% | 1.3 | 2.3 | 149\% | 85\% |
| 44 | 1 | 1,093 | 0.0009 | 0.14\% | 0.25\% | 1.5 | 2.7 | 65\% | 37\% |
| 45 | 1 | 1,136 | 0.0009 | 0.15\% | 0.26\% | 1.7 | 3.0 | 59\% | 34\% |
| 46 | 1 | 1,265 | 0.0008 | 0.15\% | 0.26\% | 1.9 | 3.3 | 53\% | 30\% |
| 47 | 6 | 1,337 | 0.0045 | 0.15\% | 0.26\% | 2.0 | 3.5 | 299\% | 171\% |
| 48 | 4 | 1,400 | 0.0029 | 0.15\% | 0.26\% | 2.1 | 3.7 | 190\% | 109\% |
| 49 | 8 | 1,463 | 0.0055 | 0.15\% | 0.26\% | 2.2 | 3.8 | 365\% | 208\% |
| 50 | 6 | 1,552 | 0.0039 | 0.15\% | 0.26\% | 2.3 | 4.1 | 258\% | 147\% |
| 51 | 6 | 1,641 | 0.0037 | 0.15\% | 0.26\% | 2.5 | 4.3 | 244\% | 139\% |
| 52 | 6 | 1,684 | 0.0036 | 0.15\% | 0.26\% | 2.5 | 4.4 | 238\% | 136\% |
| 53 | 7 | 1,768 | 0.0040 | 0.15\% | 0.26\% | 2.7 | 4.6 | 264\% | 151\% |
| 54 | 6 | 1,843 | 0.0033 | 0.15\% | 0.26\% | 2.8 | 4.8 | 217\% | 124\% |
| 55 | 7 | 2,015 | 0.0035 | 0.15\% | 0.26\% | 3.0 | 5.3 | 232\% | 132\% |
| 56 | 9 | 1,999 | 0.0045 | 0.15\% | 0.26\% | 3.0 | 5.2 | 300\% | 172\% |
| 57 | 7 | 1,914 | 0.0037 | 0.15\% | 0.26\% | 2.9 | 5.0 | 244\% | 139\% |
| 58 | 3 | 1,937 | 0.0015 | 0.15\% | 0.26\% | 2.9 | 5.1 | 103\% | 59\% |
| 59 | 3 | 1,735 | 0.0017 | 0.15\% | 0.26\% | 2.6 | 4.6 | 115\% | 66\% |
| 60 | 5 | 1,685 | 0.0030 | 0.15\% | 0.26\% | 2.5 | 4.4 | 198\% | 113\% |
| 61 | 3 | 1,521 | 0.0020 | 0.15\% | 0.26\% | 2.3 | 4.0 | 131\% | 75\% |
| 62 | 4 | 1,334 | 0.0030 | 0.15\% | 0.26\% | 2.0 | 3.5 | 200\% | 114\% |
| 63 | 3 | 976 | 0.0031 | 0.15\% | 0.26\% | 1.5 | 2.6 | 205\% | 117\% |
| 64 | 3 | 782 | 0.0038 | 0.15\% | 0.26\% | 1.2 | 2.1 | 256\% | 146\% |
| 65 | 3 | 628 | 0.0048 | 0.15\% | 0.26\% | 0.9 | 1.6 | 318\% | 182\% |
| 66 | 4 | 474 | 0.0084 | 0.15\% | 0.26\% | 0.7 | 1.2 | 563\% | 321\% |
| 67 | 2 | 402 | 0.0050 | 0.15\% | 0.26\% | 0.6 | 1.1 | 332\% | 190\% |
| 68 | 0 | 327 | 0.0000 | 0.15\% | 0.26\% | 0.5 | 0.9 | 0\% | 0\% |
| 69 | 1 | 253 | 0.0040 | 0.15\% | 0.26\% | 0.4 | 0.7 | 264\% | 151\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 114 | 41,685 |  |  |  | 58.3 | 102.1 | 195\% | 112\% |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS women

|  | TABLE 9B |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.01\% | 0.02\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.01\% | 0.02\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.01\% | 0.02\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 0 | N/A | 0.01\% | 0.02\% | 0 | 0 | 0\% | 0\% |
| 24 | 0 | 0 | N/A | 0.01\% | 0.02\% | 0 | 0 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.01\% | 0.02\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 4 | 0.0000 | 0.01\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 6 | 0.0000 | 0.01\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 28 | 0 | 5 | 0.0000 | 0.01\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 29 | 0 | 13 | 0.0000 | 0.01\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 30 | 0 | 24 | 0.0000 | 0.01\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 31 | 0 | 71 | 0.0000 | 0.01\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 32 | 1 | 354 | 0.0028 | 0.02\% | 0.03\% | 0.1 | 0.1 | 1412\% | 911\% |
| 33 | 0 | 802 | 0.0000 | 0.03\% | 0.05\% | 0.2 | 0.4 | 0\% | 0\% |
| 34 | 0 | 1,266 | 0.0000 | 0.04\% | 0.06\% | 0.5 | 0.8 | 0\% | 0\% |
| 35 | 2 | 1,639 | 0.0012 | 0.05\% | 0.08\% | 0.8 | 1.3 | 244\% | 157\% |
| 36 | 2 | 1,960 | 0.0010 | 0.06\% | 0.09\% | 1.2 | 1.8 | 170\% | 110\% |
| 37 | 5 | 2,346 | 0.0021 | 0.07\% | 0.11\% | 1.6 | 2.5 | 304\% | 196\% |
| 38 | 4 | 2,667 | 0.0015 | 0.08\% | 0.12\% | 2.1 | 3.3 | 187\% | 121\% |
| 39 | 6 | 2,786 | 0.0022 | 0.09\% | 0.14\% | 2.5 | 3.9 | 239\% | 154\% |
| 40 | 2 | 2,922 | 0.0007 | 0.10\% | 0.16\% | 2.9 | 4.5 | 68\% | 44\% |
| 41 | 1 | 3,026 | 0.0003 | 0.11\% | 0.17\% | 3.3 | 5.2 | 30\% | 19\% |
| 42 | 3 | 3,148 | 0.0010 | 0.12\% | 0.19\% | 3.8 | 5.9 | 79\% | 51\% |
| 43 | 4 | 3,325 | 0.0012 | 0.13\% | 0.20\% | 4.3 | 6.7 | 93\% | 60\% |
| 44 | 7 | 3,586 | 0.0020 | 0.14\% | 0.22\% | 5.0 | 7.8 | 139\% | 90\% |
| 45 | 9 | 3,793 | 0.0024 | 0.15\% | 0.23\% | 5.7 | 8.8 | 158\% | 102\% |
| 46 | 5 | 4,037 | 0.0012 | 0.16\% | 0.25\% | 6.5 | 10.0 | 77\% | 50\% |
| 47 | 10 | 4,209 | 0.0024 | 0.17\% | 0.26\% | 7.2 | 11.1 | 140\% | 90\% |
| 48 | 10 | 4,437 | 0.0023 | 0.18\% | 0.28\% | 8.0 | 12.4 | 125\% | 81\% |
| 49 | 13 | 4,627 | 0.0028 | 0.19\% | 0.29\% | 8.8 | 13.6 | 148\% | 95\% |
| 50 | 23 | 5,110 | 0.0045 | 0.20\% | 0.31\% | 10.2 | 15.8 | 225\% | 145\% |
| 51 | 17 | 5,519 | 0.0031 | 0.20\% | 0.31\% | 11.0 | 17.1 | 154\% | 99\% |
| 52 | 21 | 5,972 | 0.0035 | 0.20\% | 0.31\% | 11.9 | 18.5 | 176\% | 113\% |
| 53 | 27 | 6,391 | 0.0042 | 0.20\% | 0.31\% | 12.8 | 19.8 | 211\% | 136\% |
| 54 | 24 | 7,024 | 0.0034 | 0.20\% | 0.31\% | 14.0 | 21.8 | 171\% | 110\% |
| 55 | 20 | 7,430 | 0.0027 | 0.20\% | 0.31\% | 14.9 | 23.0 | 135\% | 87\% |
| 56 | 33 | 7,614 | 0.0043 | 0.20\% | 0.31\% | 15.2 | 23.6 | 217\% | 140\% |
| 57 | 22 | 7,503 | 0.0029 | 0.20\% | 0.31\% | 15.0 | 23.3 | 147\% | 95\% |
| 58 | 15 | 7,353 | 0.0020 | 0.20\% | 0.31\% | 14.7 | 22.8 | 102\% | 66\% |
| 59 | 10 | 6,836 | 0.0015 | 0.20\% | 0.31\% | 13.7 | 21.2 | 73\% | 47\% |
| 60 | 16 | 6,345 | 0.0025 | 0.20\% | 0.31\% | 12.7 | 19.7 | 126\% | 81\% |
| 61 | 13 | 5,520 | 0.0024 | 0.20\% | 0.31\% | 11.0 | 17.1 | 118\% | 76\% |
| 62 | 15 | 4,684 | 0.0032 | 0.20\% | 0.31\% | 9.4 | 14.5 | 160\% | 103\% |
| 63 | 13 | 3,498 | 0.0037 | 0.20\% | 0.31\% | 7.0 | 10.8 | 186\% | 120\% |
| 64 | 10 | 2,818 | 0.0035 | 0.20\% | 0.31\% | 5.6 | 8.7 | 177\% | 114\% |
| 65 | 3 | 2,154 | 0.0014 | 0.20\% | 0.31\% | 4.3 | 6.7 | 70\% | 45\% |
| 66 | 3 | 1,727 | 0.0017 | 0.20\% | 0.31\% | 3.5 | 5.4 | 87\% | 56\% |
| 67 | 0 | 1,296 | 0.0000 | 0.20\% | 0.31\% | 2.6 | 4.0 | 0\% | 0\% |
| 68 | 3 | 977 | 0.0031 | 0.20\% | 0.31\% | 2.0 | 3.0 | 154\% | 99\% |
| 69 | 1 | 738 | 0.0014 | 0.20\% | 0.31\% | 1.5 | 2.3 | 68\% | 44\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 373 | 147,562 |  |  |  | 257.6 | 399.2 | 145\% | 93\% |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS

 MEN|  | TABLE 9A GROUPED |  |  | Assumed Probability $\begin{gathered}\text { 4-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | $\begin{gathered} \text { Proposed } \\ (8) /(3) \\ \hline \end{gathered}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 0 | N/A | 0.00\% |  | 0 | 0 | 0\% | 0\% |
| 25-29 | 0 | 6 | 0.0000 | 0.01\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 30-34 | 0 | 487 | 0.0000 | 0.04\% | 0.07\% | 0.2 | 0.4 | 0\% | 0\% |
| 35-39 | 2 | 3,109 | 0.0006 | 0.08\% | 0.14\% | 2.5 | 4.3 | 81\% | 46\% |
| 40-44 | 4 | 5,012 | 0.0008 | 0.12\% | 0.21\% | 6.1 | 10.6 | 66\% | 38\% |
| 45-49 | 20 | 6,601 | 0.0030 | 0.15\% | 0.26\% | 9.9 | 17.3 | 202\% | 115\% |
| 50-54 | 31 | 8,488 | 0.0037 | 0.15\% | 0.26\% | 12.7 | 22.3 | 243\% | 139\% |
| 55-59 | 29 | 9,600 | 0.0030 | 0.15\% | 0.26\% | 14.4 | 25.2 | 201\% | 115\% |
| 60-64 | 18 | 6,298 | 0.0029 | 0.15\% | 0.26\% | 9.4 | 16.5 | 191\% | 109\% |
| 65-69 | 10 | 2,084 | 0.0048 | 0.15\% | 0.26\% | 3.1 | 5.5 | 320\% | 183\% |
| 70-74 | 0 | 0 | N/A | 0.00\% |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% |  | 0 | 0 | 0\% | 0\% |
| Total | 114 | 41,685 |  |  |  | 58.3 | 102.1 | 195\% | 112\% |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

 ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS WOMEN|  | TABLE 9B GROUPED |  |  | Assumed | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  | Actual/ Expected |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 0 | N/A | 0.00\% |  | 0 | 0 | 0\% | 0\% |
| 25-29 | 0 | 28 | 0.0000 | 0.01\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 30-34 | 1 | 2,517 | 0.0004 | 0.03\% | 0.05\% | 0.8 | 1.3 | 121\% | 78\% |
| 35-39 | 19 | 11,398 | 0.0017 | 0.07\% | 0.11\% | 8.3 | 12.8 | 230\% | 148\% |
| 40-44 | 17 | 16,007 | 0.0011 | 0.12\% | 0.19\% | 19.4 | 30.0 | 88\% | 57\% |
| 45-49 | 47 | 21,103 | 0.0022 | 0.17\% | 0.27\% | 36.1 | 55.9 | 130\% | 84\% |
| 50-54 | 112 | 30,016 | 0.0037 | 0.20\% | 0.31\% | 60.0 | 93.0 | 187\% | 120\% |
| 55-59 | 100 | 36,736 | 0.0027 | 0.20\% | 0.31\% | 73.5 | 113.9 | 136\% | 88\% |
| 60-64 | 67 | 22,865 | 0.0029 | 0.20\% | 0.31\% | 45.7 | 70.9 | 147\% | 95\% |
| 65-69 | 10 | 6,892 | 0.0015 | 0.20\% | 0.31\% | 13.8 | 21.4 | 73\% | 47\% |
| 70-74 | 0 | 0 | N/A | 0.00\% |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% |  | 0 | 0 | 0\% | 0\% |
| Total | 373 | 147,562 |  |  |  | 257.6 | 399.2 | 145\% | 93\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK
ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN

|  | TABLE 9A |  |  | Assumed | bability | 8-YEAR PERIOD ENDING 6/30/2011 <br> Expected Disabilities <br> Actual/ Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } / \text { (3) } \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.01\% | 0.02\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.01\% | 0.02\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.01\% | 0.02\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 0 | N/A | 0.01\% | 0.02\% | 0 | 0 | 0\% | 0\% |
| 24 | 0 | 0 | N/A | 0.01\% | 0.02\% | 0 | 0 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.01\% | 0.02\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 0 | N/A | 0.01\% | 0.02\% | 0 | 0 | 0\% | 0\% |
| 27 | 0 | 1 | 0.0000 | 0.01\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 28 | 0 | 3 | 0.0000 | 0.01\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 29 | 0 | 3 | 0.0000 | 0.01\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 30 | 0 | 6 | 0.0000 | 0.01\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 31 | 0 | 17 | 0.0000 | 0.02\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 32 | 1 | 92 | 0.0109 | 0.03\% | 0.05\% | 0.0 | 0.0 | 3623\% | 2070\% |
| 33 | 0 | 217 | 0.0000 | 0.04\% | 0.07\% | 0.1 | 0.2 | 0\% | 0\% |
| 34 | 0 | 410 | 0.0000 | 0.05\% | 0.09\% | 0.2 | 0.4 | 0\% | 0\% |
| 35 | 0 | 608 | 0.0000 | 0.06\% | 0.11\% | 0.4 | 0.6 | 0\% | 0\% |
| 36 | 1 | 864 | 0.0012 | 0.07\% | 0.12\% | 0.6 | 1.0 | 170\% | 97\% |
| 37 | 0 | 1,069 | 0.0000 | 0.08\% | 0.13\% | 0.8 | 1.4 | 0\% | 0\% |
| 38 | 3 | 1,276 | 0.0024 | 0.08\% | 0.15\% | 1.1 | 1.9 | 280\% | 160\% |
| 39 | 1 | 1,440 | 0.0007 | 0.09\% | 0.16\% | 1.3 | 2.3 | 75\% | 43\% |
| 40 | 2 | 1,585 | 0.0013 | 0.10\% | 0.18\% | 1.6 | 2.8 | 126\% | 72\% |
| 41 | 4 | 1,673 | 0.0024 | 0.11\% | 0.19\% | 1.8 | 3.2 | 217\% | 124\% |
| 42 | 2 | 1,789 | 0.0011 | 0.12\% | 0.21\% | 2.1 | 3.8 | 93\% | 53\% |
| 43 | 4 | 1,980 | 0.0020 | 0.13\% | 0.23\% | 2.6 | 4.5 | 155\% | 89\% |
| 44 | 5 | 2,114 | 0.0024 | 0.14\% | 0.25\% | 3.0 | 5.2 | 169\% | 97\% |
| 45 | 4 | 2,269 | 0.0018 | 0.15\% | 0.26\% | 3.4 | 6.0 | 118\% | 67\% |
| 46 | 3 | 2,461 | 0.0012 | 0.15\% | 0.26\% | 3.7 | 6.5 | 81\% | 46\% |
| 47 | 8 | 2,603 | 0.0031 | 0.15\% | 0.26\% | 3.9 | 6.8 | 205\% | 117\% |
| 48 | 7 | 2,781 | 0.0025 | 0.15\% | 0.26\% | 4.2 | 7.3 | 168\% | 96\% |
| 49 | 14 | 2,919 | 0.0048 | 0.15\% | 0.26\% | 4.4 | 7.7 | 320\% | 183\% |
| 50 | 11 | 3,098 | 0.0036 | 0.15\% | 0.26\% | 4.6 | 8.1 | 237\% | 135\% |
| 51 | 15 | 3,341 | 0.0045 | 0.15\% | 0.26\% | 5.0 | 8.8 | 299\% | 171\% |
| 52 | 14 | 3,566 | 0.0039 | 0.15\% | 0.26\% | 5.3 | 9.4 | 262\% | 150\% |
| 53 | 15 | 3,946 | 0.0038 | 0.15\% | 0.26\% | 5.9 | 10.4 | 253\% | 145\% |
| 54 | 15 | 4,389 | 0.0034 | 0.15\% | 0.26\% | 6.6 | 11.5 | 228\% | 130\% |
| 55 | 19 | 5,055 | 0.0038 | 0.15\% | 0.26\% | 7.6 | 13.3 | 251\% | 143\% |
| 56 | 15 | 4,678 | 0.0032 | 0.15\% | 0.26\% | 7.0 | 12.3 | 214\% | 122\% |
| 57 | 10 | 4,272 | 0.0023 | 0.15\% | 0.26\% | 6.4 | 11.2 | 156\% | 89\% |
| 58 | 8 | 3,926 | 0.0020 | 0.15\% | 0.26\% | 5.9 | 10.3 | 136\% | 78\% |
| 59 | 9 | 3,349 | 0.0027 | 0.15\% | 0.26\% | 5.0 | 8.8 | 179\% | 102\% |
| 60 | 10 | 2,928 | 0.0034 | 0.15\% | 0.26\% | 4.4 | 7.7 | 228\% | 130\% |
| 61 | 7 | 2,519 | 0.0028 | 0.15\% | 0.26\% | 3.8 | 6.6 | 185\% | 106\% |
| 62 | 4 | 2,149 | 0.0019 | 0.15\% | 0.26\% | 3.2 | 5.6 | 124\% | 71\% |
| 63 | 3 | 1,645 | 0.0018 | 0.15\% | 0.26\% | 2.5 | 4.3 | 122\% | 69\% |
| 64 | 10 | 1,336 | 0.0075 | 0.15\% | 0.26\% | 2.0 | 3.5 | 499\% | 285\% |
| 65 | 4 | 1,061 | 0.0038 | 0.15\% | 0.26\% | 1.6 | 2.8 | 251\% | 144\% |
| 66 | 4 | 823 | 0.0049 | 0.15\% | 0.26\% | 1.2 | 2.2 | 324\% | 185\% |
| 67 | 2 | 662 | 0.0030 | 0.15\% | 0.26\% | 1.0 | 1.7 | 201\% | 115\% |
| 68 | 3 | 536 | 0.0056 | 0.15\% | 0.26\% | 0.8 | 1.4 | 373\% | 213\% |
| 69 | 3 | 426 | 0.0070 | 0.15\% | 0.26\% | 0.6 | 1.1 | 469\% | 268\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 240 | 81,885 |  |  |  | 115.7 | 202.5 | 207\% | 119\% |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS

 women|  | TABLE 9B |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.01\% | 0.02\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.01\% | 0.02\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.01\% | 0.02\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 0 | N/A | 0.01\% | 0.02\% | 0 | 0 | 0\% | 0\% |
| 24 | 0 | 0 | N/A | 0.01\% | 0.02\% | 0 | 0 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.01\% | 0.02\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 5 | 0.0000 | 0.01\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 6 | 0.0000 | 0.01\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 28 | 0 | 5 | 0.0000 | 0.01\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 29 | 0 | 14 | 0.0000 | 0.01\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 30 | 0 | 28 | 0.0000 | 0.01\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 31 | 0 | 102 | 0.0000 | 0.01\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 32 | 1 | 493 | 0.0020 | 0.02\% | 0.03\% | 0.1 | 0.2 | 1014\% | 654\% |
| 33 | 0 | 1,269 | 0.0000 | 0.03\% | 0.05\% | 0.4 | 0.6 | 0\% | 0\% |
| 34 | 2 | 2,099 | 0.0010 | 0.04\% | 0.06\% | 0.8 | 1.3 | 238\% | 154\% |
| 35 | 3 | 2,800 | 0.0011 | 0.05\% | 0.08\% | 1.4 | 2.2 | 214\% | 138\% |
| 36 | 3 | 3,365 | 0.0009 | 0.06\% | 0.09\% | 2.0 | 3.1 | 149\% | 96\% |
| 37 | 8 | 3,916 | 0.0020 | 0.07\% | 0.11\% | 2.7 | 4.2 | 292\% | 188\% |
| 38 | 5 | 4,407 | 0.0011 | 0.08\% | 0.12\% | 3.5 | 5.5 | 142\% | 91\% |
| 39 | 11 | 4,770 | 0.0023 | 0.09\% | 0.14\% | 4.3 | 6.7 | 256\% | 165\% |
| 40 | 9 | 5,128 | 0.0018 | 0.10\% | 0.16\% | 5.1 | 7.9 | 176\% | 113\% |
| 41 | 4 | 5,514 | 0.0007 | 0.11\% | 0.17\% | 6.1 | 9.4 | 66\% | 43\% |
| 42 | 6 | 5,915 | 0.0010 | 0.12\% | 0.19\% | 7.1 | 11.0 | 85\% | 55\% |
| 43 | 9 | 6,229 | 0.0014 | 0.13\% | 0.20\% | 8.1 | 12.6 | 111\% | 72\% |
| 44 | 13 | 6,703 | 0.0019 | 0.14\% | 0.22\% | 9.4 | 14.5 | 139\% | 89\% |
| 45 | 19 | 7,119 | 0.0027 | 0.15\% | 0.23\% | 10.7 | 16.6 | 178\% | 115\% |
| 46 | 24 | 7,683 | 0.0031 | 0.16\% | 0.25\% | 12.3 | 19.1 | 195\% | 126\% |
| 47 | 23 | 8,282 | 0.0028 | 0.17\% | 0.26\% | 14.1 | 21.8 | 163\% | 105\% |
| 48 | 21 | 8,946 | 0.0023 | 0.18\% | 0.28\% | 16.1 | 25.0 | 130\% | 84\% |
| 49 | 30 | 9,568 | 0.0031 | 0.19\% | 0.29\% | 18.2 | 28.2 | 165\% | 106\% |
| 50 | 44 | 10,524 | 0.0042 | 0.20\% | 0.31\% | 21.0 | 32.6 | 209\% | 135\% |
| 51 | 36 | 11,534 | 0.0031 | 0.20\% | 0.31\% | 23.1 | 35.8 | 156\% | 101\% |
| 52 | 44 | 12,702 | 0.0035 | 0.20\% | 0.31\% | 25.4 | 39.4 | 173\% | 112\% |
| 53 | 72 | 14,003 | 0.0051 | 0.20\% | 0.31\% | 28.0 | 43.4 | 257\% | 166\% |
| 54 | 64 | 15,538 | 0.0041 | 0.20\% | 0.31\% | 31.1 | 48.2 | 206\% | 133\% |
| 55 | 57 | 16,671 | 0.0034 | 0.20\% | 0.31\% | 33.3 | 51.7 | 171\% | 110\% |
| 56 | 58 | 15,682 | 0.0037 | 0.20\% | 0.31\% | 31.4 | 48.6 | 185\% | 119\% |
| 57 | 58 | 14,622 | 0.0040 | 0.20\% | 0.31\% | 29.2 | 45.3 | 198\% | 128\% |
| 58 | 49 | 13,403 | 0.0037 | 0.20\% | 0.31\% | 26.8 | 41.5 | 183\% | 118\% |
| 59 | 31 | 12,036 | 0.0026 | 0.20\% | 0.31\% | 24.1 | 37.3 | 129\% | 83\% |
| 60 | 34 | 10,881 | 0.0031 | 0.20\% | 0.31\% | 21.8 | 33.7 | 156\% | 101\% |
| 61 | 30 | 9,383 | 0.0032 | 0.20\% | 0.31\% | 18.8 | 29.1 | 160\% | 103\% |
| 62 | 31 | 8,155 | 0.0038 | 0.20\% | 0.31\% | 16.3 | 25.3 | 190\% | 123\% |
| 63 | 19 | 6,160 | 0.0031 | 0.20\% | 0.31\% | 12.3 | 19.1 | 154\% | 99\% |
| 64 | 13 | 4,896 | 0.0027 | 0.20\% | 0.31\% | 9.8 | 15.2 | 133\% | 86\% |
| 65 | 5 | 3,813 | 0.0013 | 0.20\% | 0.31\% | 7.6 | 11.8 | 66\% | 42\% |
| 66 | 7 | 2,949 | 0.0024 | 0.20\% | 0.31\% | 5.9 | 9.1 | 119\% | 77\% |
| 67 | 5 | 2,244 | 0.0022 | 0.20\% | 0.31\% | 4.5 | 7.0 | 111\% | 72\% |
| 68 | 6 | 1,727 | 0.0035 | 0.20\% | 0.31\% | 3.5 | 5.4 | 174\% | 112\% |
| 69 | 2 | 1,316 | 0.0015 | 0.20\% | 0.31\% | 2.6 | 4.1 | 76\% | 49\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 856 | 282,605 |  |  |  | 498.9 | 773.3 | 172\% | 111\% |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS

 MEN|  | TABLE 9A GROUPED |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total <br> Exposed | $\begin{gathered} \text { Actual Rate } \\ \text { (2)/(3) } \\ \hline \end{gathered}$ | Expected $(7) /(3)$ | Proposed (8) / (3) | Expected | Proposed | Expected (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 0 | N/A | 0.00\% |  | 0 | 0 | 0\% | 0\% |
| 25-29 | 0 | 7 | 0.0000 | 0.01\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 30-34 | 1 | 742 | 0.0013 | 0.04\% | 0.08\% | 0.3 | 0.6 | 309\% | 177\% |
| 35-39 | 5 | 5,257 | 0.0010 | 0.08\% | 0.14\% | 4.2 | 7.3 | 120\% | 69\% |
| 40-44 | 17 | 9,141 | 0.0019 | 0.12\% | 0.21\% | 11.1 | 19.4 | 153\% | 87\% |
| 45-49 | 36 | 13,033 | 0.0028 | 0.15\% | 0.26\% | 19.5 | 34.2 | 184\% | 105\% |
| 50-54 | 70 | 18,340 | 0.0038 | 0.15\% | 0.26\% | 27.5 | 48.1 | 254\% | 145\% |
| 55-59 | 61 | 21,280 | 0.0029 | 0.15\% | 0.26\% | 31.9 | 55.9 | 191\% | 109\% |
| 60-64 | 34 | 10,577 | 0.0032 | 0.15\% | 0.26\% | 15.9 | 27.8 | 214\% | 122\% |
| 65-69 | 16 | 3,508 | 0.0046 | 0.15\% | 0.26\% | 5.3 | 9.2 | 304\% | 174\% |
| 70-74 | 0 | 0 | N/A | 0.00\% |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% |  | 0 | 0 | 0\% | 0\% |
| Total | 240 | 81,885 |  |  |  | 115.7 | 202.5 | 207\% | 119\% |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

 ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS WOMEN|  | TABLE 9B GROUPED |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | Proposed $(\mathbf{8}) /(\mathbf{3})$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 0 | N/A | 0.00\% |  | 0 | 0 | 0\% | 0\% |
| 25-29 | 0 | 30 | 0.0000 | 0.01\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 30-34 | 3 | 3,991 | 0.0008 | 0.03\% | 0.05\% | 1.3 | 2.1 | 225\% | 145\% |
| 35-39 | 30 | 19,258 | 0.0016 | 0.07\% | 0.11\% | 14.0 | 21.7 | 215\% | 138\% |
| 40-44 | 41 | 29,489 | 0.0014 | 0.12\% | 0.19\% | 35.8 | 55.4 | 115\% | 74\% |
| 45-49 | 117 | 41,598 | 0.0028 | 0.17\% | 0.27\% | 71.3 | 110.6 | 164\% | 106\% |
| 50-54 | 260 | 64,301 | 0.0040 | 0.20\% | 0.31\% | 128.6 | 199.3 | 202\% | 130\% |
| 55-59 | 253 | 72,414 | 0.0035 | 0.20\% | 0.31\% | 144.8 | 224.5 | 175\% | 113\% |
| 60-64 | 127 | 39,475 | 0.0032 | 0.20\% | 0.31\% | 79.0 | 122.4 | 161\% | 104\% |
| 65-69 | 25 | 12,049 | 0.0021 | 0.20\% | 0.31\% | 24.1 | 37.4 | 104\% | 67\% |
| 70-74 | 0 | 0 | N/A | 0.00\% |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.00\% |  | 0 | 0 | 0\% | 0\% |
| Total | 856 | 282,605 |  |  |  | 498.9 | 773.3 | 172\% | 111\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Plan <br> Year <br> Ending <br> June 30, | TABLE 9C <br> Life Years Exposed | Actual Disabilities | Expected Disabilities | 10-YEAR PERIOD ENDING 6/30/2013 Disability Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual/ Expected | $\begin{gathered} \text { Actual } \\ (3) /(2) \end{gathered}$ | $\begin{gathered} \hline \text { Expected } \\ (4) /(2) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 45,966 | 141 | 78.6 | 179\% | 0.31\% | 0.17\% |
| 2005 | 43,520 | 207 | 74.3 | 279\% | 0.48\% | 0.17\% |
| 2006 | 42,752 | 110 | 72.8 | 151\% | 0.26\% | 0.17\% |
| 2007 | 43,005 | 156 | 73.0 | 214\% | 0.36\% | 0.17\% |
| 2008 | 44,425 | 133 | 75.0 | 177\% | 0.30\% | 0.17\% |
| 2009 | 46,168 | 89 | 77.5 | 115\% | 0.19\% | 0.17\% |
| 2010 | 47,766 | 129 | 79.6 | 162\% | 0.27\% | 0.17\% |
| 2011 | 50,888 | 142 | 83.8 | 169\% | 0.28\% | 0.16\% |
| 2012 | 51,482 | 142 | 84.2 | 169\% | 0.28\% | 0.16\% |
| 2013 | 54,473 | 60 | 87.8 | 68\% | 0.11\% | 0.16\% |
| Total | 470,445 | 1,309 | 786.5 | 166\% | 0.28\% | 0.17\% |

The probablities for Ordinary Disability apply even if the Disability benefit is not payable.

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK
aCCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN

|  | TABLE 10A |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 10 | 0.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 18 | 0.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 55 | 0.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 597 | 0.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 1,157 | 0.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 1,658 | 0.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 26 | 0 | 1,961 | 0.0000 | 0.00\% | 0.00\% | 0.0 | 0.1 | 0\% | 0\% |
| 27 | 0 | 2,294 | 0.0000 | 0.00\% | 0.00\% | 0.0 | 0.1 | 0\% | 0\% |
| 28 | 0 | 2,548 | 0.0000 | 0.00\% | 0.00\% | 0.1 | 0.1 | 0\% | 0\% |
| 29 | 0 | 2,675 | 0.0000 | 0.00\% | 0.00\% | 0.1 | 0.1 | 0\% | 0\% |
| 30 | 0 | 2,728 | 0.0000 | 0.00\% | 0.00\% | 0.1 | 0.1 | 0\% | 0\% |
| 31 | 0 | 2,813 | 0.0000 | 0.00\% | 0.00\% | 0.1 | 0.1 | 0\% | 0\% |
| 32 | 0 | 2,770 | 0.0000 | 0.00\% | 0.01\% | 0.1 | 0.1 | 0\% | 0\% |
| 33 | 0 | 2,705 | 0.0000 | 0.01\% | 0.01\% | 0.2 | 0.2 | 0\% | 0\% |
| 34 | 1 | 2,609 | 0.0004 | 0.01\% | 0.01\% | 0.2 | 0.3 | 479\% | 355\% |
| 35 | 1 | 2,581 | 0.0004 | 0.01\% | 0.01\% | 0.3 | 0.3 | 387\% | 287\% |
| 36 | 1 | 2,623 | 0.0004 | 0.01\% | 0.02\% | 0.3 | 0.4 | 318\% | 235\% |
| 37 | 0 | 2,692 | 0.0000 | 0.01\% | 0.02\% | 0.4 | 0.5 | 0\% | 0\% |
| 38 | 1 | 2,666 | 0.0004 | 0.02\% | 0.02\% | 0.4 | 0.6 | 234\% | 174\% |
| 39 | 0 | 2,716 | 0.0000 | 0.02\% | 0.02\% | 0.5 | 0.7 | 0\% | 0\% |
| 40 | 0 | 2,568 | 0.0000 | 0.02\% | 0.03\% | 0.5 | 0.7 | 0\% | 0\% |
| 41 | 0 | 2,457 | 0.0000 | 0.02\% | 0.03\% | 0.5 | 0.7 | 0\% | 0\% |
| 42 | 0 | 2,363 | 0.0000 | 0.02\% | 0.03\% | 0.5 | 0.7 | 0\% | 0\% |
| 43 | 0 | 2,347 | 0.0000 | 0.02\% | 0.03\% | 0.5 | 0.7 | 0\% | 0\% |
| 44 | 1 | 2,311 | 0.0004 | 0.02\% | 0.03\% | 0.6 | 0.7 | 180\% | 134\% |
| 45 | 1 | 2,292 | 0.0004 | 0.03\% | 0.03\% | 0.6 | 0.8 | 175\% | 129\% |
| 46 | 1 | 2,387 | 0.0004 | 0.03\% | 0.04\% | 0.6 | 0.8 | 161\% | 119\% |
| 47 | 0 | 2,485 | 0.0000 | 0.03\% | 0.04\% | 0.7 | 0.9 | 0\% | 0\% |
| 48 | 1 | 2,423 | 0.0004 | 0.03\% | 0.04\% | 0.7 | 0.9 | 147\% | 109\% |
| 49 | 1 | 2,460 | 0.0004 | 0.03\% | 0.04\% | 0.7 | 1.0 | 140\% | 104\% |
| 50 | 1 | 2,510 | 0.0004 | 0.03\% | 0.04\% | 0.8 | 1.0 | 133\% | 98\% |
| 51 | 0 | 2,561 | 0.0000 | 0.03\% | 0.04\% | 0.8 | 1.1 | 0\% | 0\% |
| 52 | 0 | 2,597 | 0.0000 | 0.03\% | 0.04\% | 0.8 | 1.1 | 0\% | 0\% |
| 53 | 1 | 2,634 | 0.0004 | 0.03\% | 0.04\% | 0.9 | 1.2 | 115\% | 85\% |
| 54 | 0 | 2,710 | 0.0000 | 0.03\% | 0.05\% | 0.9 | 1.2 | 0\% | 0\% |
| 55 | 1 | 2,833 | 0.0004 | 0.04\% | 0.05\% | 1.0 | 1.3 | 101\% | 75\% |
| 56 | 2 | 2,829 | 0.0007 | 0.04\% | 0.05\% | 1.0 | 1.4 | 196\% | 145\% |
| 57 | 2 | 2,644 | 0.0008 | 0.04\% | 0.05\% | 1.0 | 1.3 | 204\% | 151\% |
| 58 | 4 | 2,634 | 0.0015 | 0.04\% | 0.05\% | 1.0 | 1.4 | 400\% | 296\% |
| 59 | 5 | 2,414 | 0.0021 | 0.04\% | 0.05\% | 0.9 | 1.3 | 531\% | 393\% |
| 60 | 0 | 2,290 | 0.0000 | 0.04\% | 0.05\% | 0.9 | 1.2 | 0\% | 0\% |
| 61 | 2 | 2,057 | 0.0010 | 0.04\% | 0.05\% | 0.8 | 1.1 | 243\% | 180\% |
| 62 | 0 | 1,769 | 0.0000 | 0.04\% | 0.05\% | 0.7 | 1.0 | 0\% | 0\% |
| 63 | 2 | 1,305 | 0.0015 | 0.04\% | 0.05\% | 0.5 | 0.7 | 383\% | 284\% |
| 64 | 1 | 1,066 | 0.0009 | 0.04\% | 0.05\% | 0.4 | 0.6 | 235\% | 174\% |
| 65 | 0 | 848 | 0.0000 | 0.04\% | 0.05\% | 0.3 | 0.5 | 0\% | 0\% |
| 66 | 0 | 631 | 0.0000 | 0.04\% | 0.05\% | 0.3 | 0.3 | 0\% | 0\% |
| 67 | 0 | 526 | 0.0000 | 0.04\% | 0.05\% | 0.2 | 0.3 | 0\% | 0\% |
| 68 | 0 | 427 | 0.0000 | 0.04\% | 0.05\% | 0.2 | 0.2 | 0\% | 0\% |
| 69 | 0 | 333 | 0.0000 | 0.04\% | 0.05\% | 0.1 | 0.2 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 1 | 0.0000 | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 30 | 101,588 |  |  |  | 22.2 | 30.0 | 135\% | 100\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK
accidental disability experience of active members women

|  | TABLE 10B |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 9 | 0.0000 | 0.00\% | 0.01\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 41 | 0.0000 | 0.00\% | 0.01\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 180 | 0.0000 | 0.00\% | 0.01\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 2,325 | 0.0000 | 0.00\% | 0.01\% | 0.0 | 0.2 | 0\% | 0\% |
| 24 | 0 | 4,738 | 0.0000 | 0.00\% | 0.01\% | 0.1 | 0.3 | 0\% | 0\% |
| 25 | 0 | 6,693 | 0.0000 | 0.00\% | 0.01\% | 0.1 | 0.6 | 0\% | 0\% |
| 26 | 1 | 8,142 | 0.0001 | 0.00\% | 0.01\% | 0.2 | 0.7 | 614\% | 134\% |
| 27 | 0 | 8,962 | 0.0000 | 0.00\% | 0.01\% | 0.2 | 0.8 | 0\% | 0\% |
| 28 | 0 | 9,784 | 0.0000 | 0.00\% | 0.01\% | 0.2 | 0.9 | 0\% | 0\% |
| 29 | 1 | 9,951 | 0.0001 | 0.00\% | 0.01\% | 0.2 | 0.9 | 502\% | 110\% |
| 30 | 0 | 9,669 | 0.0000 | 0.00\% | 0.01\% | 0.2 | 0.9 | 0\% | 0\% |
| 31 | 0 | 9,486 | 0.0000 | 0.00\% | 0.01\% | 0.2 | 0.9 | 0\% | 0\% |
| 32 | 1 | 9,046 | 0.0001 | 0.00\% | 0.01\% | 0.2 | 0.8 | 553\% | 121\% |
| 33 | 0 | 8,696 | 0.0000 | 0.00\% | 0.01\% | 0.3 | 0.8 | 0\% | 0\% |
| 34 | 0 | 8,183 | 0.0000 | 0.00\% | 0.01\% | 0.3 | 0.7 | 0\% | 0\% |
| 35 | 0 | 7,953 | 0.0000 | 0.01\% | 0.01\% | 0.4 | 0.7 | 0\% | 0\% |
| 36 | 1 | 7,727 | 0.0001 | 0.01\% | 0.01\% | 0.5 | 0.7 | 216\% | 142\% |
| 37 | 1 | 7,789 | 0.0001 | 0.01\% | 0.01\% | 0.5 | 0.7 | 183\% | 141\% |
| 38 | 1 | 7,764 | 0.0001 | 0.01\% | 0.01\% | 0.6 | 0.7 | 161\% | 141\% |
| 39 | 2 | 7,521 | 0.0003 | 0.01\% | 0.01\% | 0.7 | 0.7 | 295\% | 291\% |
| 40 | 1 | 7,410 | 0.0001 | 0.01\% | 0.01\% | 0.7 | 0.7 | 135\% | 147\% |
| 41 | 0 | 7,192 | 0.0000 | 0.01\% | 0.01\% | 0.9 | 0.8 | 0\% | 0\% |
| 42 | 0 | 7,128 | 0.0000 | 0.01\% | 0.01\% | 1.0 | 1.0 | 0\% | 0\% |
| 43 | 0 | 7,277 | 0.0000 | 0.02\% | 0.02\% | 1.2 | 1.2 | 0\% | 0\% |
| 44 | 2 | 7,474 | 0.0003 | 0.02\% | 0.02\% | 1.3 | 1.5 | 149\% | 136\% |
| 45 | 2 | 7,584 | 0.0003 | 0.02\% | 0.02\% | 1.5 | 1.7 | 132\% | 117\% |
| 46 | 4 | 7,764 | 0.0005 | 0.02\% | 0.03\% | 1.7 | 2.0 | 234\% | 203\% |
| 47 | 3 | 7,961 | 0.0004 | 0.02\% | 0.03\% | 1.9 | 2.2 | 157\% | 134\% |
| 48 | 6 | 8,144 | 0.0007 | 0.03\% | 0.03\% | 2.1 | 2.5 | 283\% | 238\% |
| 49 | 3 | 8,220 | 0.0004 | 0.03\% | 0.03\% | 2.3 | 2.8 | 130\% | 109\% |
| 50 | 4 | 8,710 | 0.0005 | 0.03\% | 0.04\% | 2.6 | 3.1 | 153\% | 127\% |
| 51 | 8 | 9,014 | 0.0009 | 0.03\% | 0.04\% | 2.8 | 3.5 | 286\% | 230\% |
| 52 | 3 | 9,316 | 0.0003 | 0.03\% | 0.04\% | 3.0 | 3.8 | 101\% | 79\% |
| 53 | 7 | 9,579 | 0.0007 | 0.03\% | 0.04\% | 3.2 | 4.1 | 221\% | 171\% |
| 54 | 8 | 9,970 | 0.0008 | 0.03\% | 0.04\% | 3.4 | 4.4 | 236\% | 180\% |
| 55 | 6 | 10,133 | 0.0006 | 0.04\% | 0.05\% | 3.5 | 4.7 | 169\% | 129\% |
| 56 | 10 | 10,097 | 0.0010 | 0.04\% | 0.05\% | 3.6 | 4.8 | 275\% | 210\% |
| 57 | 8 | 9,703 | 0.0008 | 0.04\% | 0.05\% | 3.6 | 4.7 | 223\% | 172\% |
| 58 | 5 | 9,289 | 0.0005 | 0.04\% | 0.05\% | 3.5 | 4.5 | 142\% | 111\% |
| 59 | 8 | 8,494 | 0.0009 | 0.04\% | 0.05\% | 3.3 | 4.1 | 241\% | 194\% |
| 60 | 3 | 7,779 | 0.0004 | 0.04\% | 0.05\% | 3.1 | 3.8 | 96\% | 79\% |
| 61 | 6 | 6,740 | 0.0009 | 0.04\% | 0.05\% | 2.7 | 3.3 | 223\% | 183\% |
| 62 | 4 | 5,623 | 0.0007 | 0.04\% | 0.05\% | 2.2 | 2.7 | 178\% | 146\% |
| 63 | 2 | 4,251 | 0.0005 | 0.04\% | 0.05\% | 1.7 | 2.1 | 118\% | 97\% |
| 64 | 1 | 3,408 | 0.0003 | 0.04\% | 0.05\% | 1.4 | 1.7 | 73\% | 60\% |
| 65 | 0 | 2,591 | 0.0000 | 0.04\% | 0.05\% | 1.0 | 1.3 | 0\% | 0\% |
| 66 | 4 | 2,068 | 0.0019 | 0.04\% | 0.05\% | 0.8 | 1.0 | 484\% | 398\% |
| 67 | 0 | 1,550 | 0.0000 | 0.04\% | 0.05\% | 0.6 | 0.8 | 0\% | 0\% |
| 68 | 0 | 1,165 | 0.0000 | 0.04\% | 0.05\% | 0.5 | 0.6 | 0\% | 0\% |
| 69 | 1 | 865 | 0.0012 | 0.04\% | 0.05\% | 0.3 | 0.4 | 289\% | 238\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.05\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.05\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.05\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.05\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.05\% | 0 | 0 | 0\% | 0\% |
| Other | 1 | 3 | 0.3333 | 0.00\% | 0.05\% | 0 | 0.0 | 0\% | 68521\% |
| Total | 118 | 341,161 |  |  |  | 66.5 | 87.8 | 177\% | 134\% |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN

|  | TABLE 10A GROUPED |  |  | Assumed Probability $\quad \begin{gathered}\text { 4-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered} \quad$ Actual/ Expected |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | $\begin{gathered} \text { Proposed } \\ (8) /(3) \\ \hline \end{gathered}$ | Expected | Proposed | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 1,837 | 0.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 25-29 | 0 | 11,136 | 0.0000 | 0.00\% | 0.00\% | 0.2 | 0.3 | 0\% | 0\% |
| 30-34 | 1 | 13,625 | 0.0001 | 0.00\% | 0.01\% | 0.6 | 0.8 | 169\% | 125\% |
| 35-39 | 3 | 13,278 | 0.0002 | 0.01\% | 0.02\% | 1.9 | 2.5 | 161\% | 119\% |
| 40-44 | 1 | 12,046 | 0.0001 | 0.02\% | 0.03\% | 2.6 | 3.6 | 38\% | 28\% |
| 45-49 | 4 | 12,047 | 0.0003 | 0.03\% | 0.04\% | 3.3 | 4.4 | 123\% | 91\% |
| 50-54 | 2 | 13,012 | 0.0002 | 0.03\% | 0.04\% | 4.2 | 5.6 | 48\% | 36\% |
| 55-59 | 14 | 13,354 | 0.0010 | 0.04\% | 0.05\% | 4.9 | 6.7 | 284\% | 210\% |
| 60-64 | 5 | 8,487 | 0.0006 | 0.04\% | 0.05\% | 3.4 | 4.6 | 147\% | 109\% |
| 65-69 | 0 | 2,765 | 0.0000 | 0.04\% | 0.05\% | 1.1 | 1.5 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A | 0.00\% |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 1 | 0.0000 | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 30 | 101,588 |  |  |  | 22.2 | 30.0 | 135\% | 100\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK
ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

|  | TABLE 10B GROUPED |  |  | Assumed Probability $\begin{gathered}\text { 4-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | $\begin{gathered} \text { Proposed } \\ (8) /(3) \\ \hline \end{gathered}$ | Expected | Proposed | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 7,293 | 0.0000 | 0.00\% | 0.01\% | 0.1 | 0.5 | 0\% | 0\% |
| 25-29 | 2 | 43,532 | 0.0000 | 0.00\% | 0.01\% | 0.9 | 4.0 | 230\% | 50\% |
| 30-34 | 1 | 45,080 | 0.0000 | 0.00\% | 0.01\% | 1.2 | 4.1 | 87\% | 24\% |
| 35-39 | 5 | 38,754 | 0.0001 | 0.01\% | 0.01\% | 2.7 | 3.5 | 185\% | 141\% |
| 40-44 | 3 | 36,481 | 0.0001 | 0.01\% | 0.01\% | 5.1 | 5.2 | 59\% | 57\% |
| 45-49 | 18 | 39,673 | 0.0005 | 0.02\% | 0.03\% | 9.6 | 11.2 | 188\% | 161\% |
| 50-54 | 30 | 46,589 | 0.0006 | 0.03\% | 0.04\% | 14.9 | 19.0 | 201\% | 158\% |
| 55-59 | 37 | 47,716 | 0.0008 | 0.04\% | 0.05\% | 17.6 | 22.7 | 210\% | 163\% |
| 60-64 | 16 | 27,801 | 0.0006 | 0.04\% | 0.05\% | 11.1 | 13.5 | 144\% | 118\% |
| 65-69 | 5 | 8,239 | 0.0006 | 0.04\% | 0.05\% | 3.3 | 4.0 | 152\% | 125\% |
| 70-74 | 0 | 0 | N/A | 0.00\% |  | 0 | 0 | 0\% | 0\% |
| Other | 1 | 3 | 0.3333 | 0.00\% | 0.05\% | 0 | 0.0 | 0\% | 68521\% |
| Total | 118 | 341,161 |  |  |  | 66.5 | 87.8 | 177\% | 134\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK
aCCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS
MEN

|  | TABLE 10A |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 12 | 0.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 33 | 0.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 100 | 0.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 1,266 | 0.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 2,386 | 0.0000 | 0.00\% | 0.00\% | 0.0 | 0.1 | 0\% | 0\% |
| 25 | 0 | 3,236 | 0.0000 | 0.00\% | 0.00\% | 0.1 | 0.1 | 0\% | 0\% |
| 26 | 0 | 3,796 | 0.0000 | 0.00\% | 0.00\% | 0.1 | 0.1 | 0\% | 0\% |
| 27 | 0 | 4,324 | 0.0000 | 0.00\% | 0.00\% | 0.1 | 0.1 | 0\% | 0\% |
| 28 | 0 | 4,670 | 0.0000 | 0.00\% | 0.00\% | 0.1 | 0.1 | 0\% | 0\% |
| 29 | 0 | 4,848 | 0.0000 | 0.00\% | 0.00\% | 0.1 | 0.1 | 0\% | 0\% |
| 30 | 0 | 4,909 | 0.0000 | 0.00\% | 0.00\% | 0.1 | 0.1 | 0\% | 0\% |
| 31 | 0 | 4,981 | 0.0000 | 0.00\% | 0.00\% | 0.1 | 0.1 | 0\% | 0\% |
| 32 | 0 | 5,074 | 0.0000 | 0.00\% | 0.01\% | 0.2 | 0.3 | 0\% | 0\% |
| 33 | 0 | 5,078 | 0.0000 | 0.01\% | 0.01\% | 0.3 | 0.4 | 0\% | 0\% |
| 34 | 1 | 5,089 | 0.0002 | 0.01\% | 0.01\% | 0.4 | 0.5 | 246\% | 182\% |
| 35 | 1 | 5,033 | 0.0002 | 0.01\% | 0.01\% | 0.5 | 0.7 | 199\% | 147\% |
| 36 | 1 | 4,999 | 0.0002 | 0.01\% | 0.02\% | 0.6 | 0.8 | 167\% | 123\% |
| 37 | 1 | 4,968 | 0.0002 | 0.01\% | 0.02\% | 0.7 | 0.9 | 144\% | 107\% |
| 38 | 1 | 4,825 | 0.0002 | 0.02\% | 0.02\% | 0.8 | 1.0 | 130\% | 96\% |
| 39 | 0 | 4,858 | 0.0000 | 0.02\% | 0.02\% | 0.9 | 1.2 | 0\% | 0\% |
| 40 | 0 | 4,729 | 0.0000 | 0.02\% | 0.03\% | 0.9 | 1.3 | 0\% | 0\% |
| 41 | 0 | 4,582 | 0.0000 | 0.02\% | 0.03\% | 1.0 | 1.3 | 0\% | 0\% |
| 42 | 1 | 4,533 | 0.0002 | 0.02\% | 0.03\% | 1.0 | 1.3 | 100\% | 74\% |
| 43 | 0 | 4,578 | 0.0000 | 0.02\% | 0.03\% | 1.1 | 1.4 | 0\% | 0\% |
| 44 | 1 | 4,591 | 0.0002 | 0.02\% | 0.03\% | 1.1 | 1.5 | 91\% | 67\% |
| 45 | 1 | 4,621 | 0.0002 | 0.03\% | 0.03\% | 1.2 | 1.6 | 87\% | 64\% |
| 46 | 3 | 4,768 | 0.0006 | 0.03\% | 0.04\% | 1.2 | 1.7 | 242\% | 179\% |
| 47 | 1 | 4,903 | 0.0002 | 0.03\% | 0.04\% | 1.3 | 1.8 | 76\% | 56\% |
| 48 | 1 | 4,949 | 0.0002 | 0.03\% | 0.04\% | 1.4 | 1.9 | 72\% | 53\% |
| 49 | 6 | 5,041 | 0.0012 | 0.03\% | 0.04\% | 1.5 | 2.0 | 410\% | 304\% |
| 50 | 2 | 5,145 | 0.0004 | 0.03\% | 0.04\% | 1.5 | 2.1 | 130\% | 96\% |
| 51 | 0 | 5,302 | 0.0000 | 0.03\% | 0.04\% | 1.6 | 2.2 | 0\% | 0\% |
| 52 | 3 | 5,552 | 0.0005 | 0.03\% | 0.04\% | 1.8 | 2.4 | 169\% | 125\% |
| 53 | 3 | 5,888 | 0.0005 | 0.03\% | 0.04\% | 1.9 | 2.6 | 154\% | 114\% |
| 54 | 3 | 6,262 | 0.0005 | 0.03\% | 0.05\% | 2.1 | 2.9 | 141\% | 104\% |
| 55 | 3 | 6,818 | 0.0004 | 0.04\% | 0.05\% | 2.4 | 3.2 | 126\% | 93\% |
| 56 | 4 | 6,351 | 0.0006 | 0.04\% | 0.05\% | 2.3 | 3.1 | 175\% | 130\% |
| 57 | 6 | 5,793 | 0.0010 | 0.04\% | 0.05\% | 2.1 | 2.9 | 280\% | 207\% |
| 58 | 6 | 5,350 | 0.0011 | 0.04\% | 0.05\% | 2.0 | 2.7 | 295\% | 219\% |
| 59 | 7 | 4,636 | 0.0015 | 0.04\% | 0.05\% | 1.8 | 2.4 | 387\% | 287\% |
| 60 | 1 | 4,050 | 0.0002 | 0.04\% | 0.05\% | 1.6 | 2.2 | 62\% | 46\% |
| 61 | 4 | 3,475 | 0.0012 | 0.04\% | 0.05\% | 1.4 | 1.9 | 288\% | 213\% |
| 62 | 2 | 2,924 | 0.0007 | 0.04\% | 0.05\% | 1.2 | 1.6 | 171\% | 127\% |
| 63 | 2 | 2,248 | 0.0009 | 0.04\% | 0.05\% | 0.9 | 1.2 | 222\% | 165\% |
| 64 | 2 | 1,837 | 0.0011 | 0.04\% | 0.05\% | 0.7 | 1.0 | 272\% | 202\% |
| 65 | 0 | 1,468 | 0.0000 | 0.04\% | 0.05\% | 0.6 | 0.8 | 0\% | 0\% |
| 66 | 2 | 1,128 | 0.0018 | 0.04\% | 0.05\% | 0.5 | 0.6 | 443\% | 328\% |
| 67 | 0 | 911 | 0.0000 | 0.04\% | 0.05\% | 0.4 | 0.5 | 0\% | 0\% |
| 68 | 0 | 728 | 0.0000 | 0.04\% | 0.05\% | 0.3 | 0.4 | 0\% | 0\% |
| 69 | 2 | 565 | 0.0035 | 0.04\% | 0.05\% | 0.2 | 0.3 | 885\% | 656\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 1 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Other | 0 | 3 | 0.0000 | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 72 | 198,214 |  |  |  | 44.1 | 59.5 | 163\% | 121\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK
aCCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS women

|  | TABLE 10B |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 22 | 0.0000 | 0.00\% | 0.01\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 70 | 0.0000 | 0.00\% | 0.01\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 383 | 0.0000 | 0.00\% | 0.01\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 5,425 | 0.0000 | 0.00\% | 0.01\% | 0.1 | 0.4 | 0\% | 0\% |
| 24 | 0 | 10,061 | 0.0000 | 0.00\% | 0.01\% | 0.2 | 0.7 | 0\% | 0\% |
| 25 | 0 | 13,547 | 0.0000 | 0.00\% | 0.01\% | 0.3 | 1.2 | 0\% | 0\% |
| 26 | 1 | 16,001 | 0.0001 | 0.00\% | 0.01\% | 0.3 | 1.5 | 312\% | 68\% |
| 27 | 0 | 17,298 | 0.0000 | 0.00\% | 0.01\% | 0.3 | 1.6 | 0\% | 0\% |
| 28 | 1 | 18,205 | 0.0001 | 0.00\% | 0.01\% | 0.4 | 1.7 | 275\% | 60\% |
| 29 | 1 | 18,387 | 0.0001 | 0.00\% | 0.01\% | 0.4 | 1.7 | 272\% | 60\% |
| 30 | 0 | 17,800 | 0.0000 | 0.00\% | 0.01\% | 0.4 | 1.6 | 0\% | 0\% |
| 31 | 0 | 17,342 | 0.0000 | 0.00\% | 0.01\% | 0.3 | 1.6 | 0\% | 0\% |
| 32 | 1 | 16,745 | 0.0001 | 0.00\% | 0.01\% | 0.3 | 1.5 | 299\% | 65\% |
| 33 | 0 | 16,355 | 0.0000 | 0.00\% | 0.01\% | 0.5 | 1.5 | 0\% | 0\% |
| 34 | 1 | 15,824 | 0.0001 | 0.00\% | 0.01\% | 0.6 | 1.4 | 158\% | 69\% |
| 35 | 0 | 15,234 | 0.0000 | 0.01\% | 0.01\% | 0.8 | 1.4 | 0\% | 0\% |
| 36 | 1 | 14,716 | 0.0001 | 0.01\% | 0.01\% | 0.9 | 1.3 | 113\% | 74\% |
| 37 | 1 | 14,342 | 0.0001 | 0.01\% | 0.01\% | 1.0 | 1.3 | 100\% | 76\% |
| 38 | 3 | 14,106 | 0.0002 | 0.01\% | 0.01\% | 1.1 | 1.3 | 266\% | 233\% |
| 39 | 2 | 13,841 | 0.0001 | 0.01\% | 0.01\% | 1.2 | 1.3 | 161\% | 158\% |
| 40 | 3 | 13,937 | 0.0002 | 0.01\% | 0.01\% | 1.4 | 1.3 | 215\% | 235\% |
| 41 | 1 | 13,914 | 0.0001 | 0.01\% | 0.01\% | 1.7 | 1.6 | 60\% | 62\% |
| 42 | 1 | 14,124 | 0.0001 | 0.01\% | 0.01\% | 2.0 | 2.0 | 51\% | 50\% |
| 43 | 1 | 14,345 | 0.0001 | 0.02\% | 0.02\% | 2.3 | 2.4 | 44\% | 41\% |
| 44 | 5 | 14,682 | 0.0003 | 0.02\% | 0.02\% | 2.6 | 2.9 | 189\% | 173\% |
| 45 | 4 | 15,094 | 0.0003 | 0.02\% | 0.02\% | 3.0 | 3.4 | 133\% | 118\% |
| 46 | 5 | 15,653 | 0.0003 | 0.02\% | 0.03\% | 3.4 | 4.0 | 145\% | 126\% |
| 47 | 6 | 16,278 | 0.0004 | 0.02\% | 0.03\% | 3.9 | 4.6 | 154\% | 131\% |
| 48 | 11 | 16,907 | 0.0007 | 0.03\% | 0.03\% | 4.4 | 5.2 | 250\% | 210\% |
| 49 | 5 | 17,447 | 0.0003 | 0.03\% | 0.03\% | 4.9 | 5.9 | 102\% | 85\% |
| 50 | 8 | 18,167 | 0.0004 | 0.03\% | 0.04\% | 5.5 | 6.6 | 147\% | 122\% |
| 51 | 13 | 18,927 | 0.0007 | 0.03\% | 0.04\% | 5.9 | 7.3 | 222\% | 178\% |
| 52 | 9 | 19,768 | 0.0005 | 0.03\% | 0.04\% | 6.3 | 8.1 | 142\% | 112\% |
| 53 | 17 | 20,599 | 0.0008 | 0.03\% | 0.04\% | 6.8 | 8.8 | 250\% | 193\% |
| 54 | 12 | 21,663 | 0.0006 | 0.03\% | 0.04\% | 7.4 | 9.6 | 163\% | 124\% |
| 55 | 16 | 22,174 | 0.0007 | 0.04\% | 0.05\% | 7.8 | 10.2 | 206\% | 157\% |
| 56 | 17 | 20,684 | 0.0008 | 0.04\% | 0.05\% | 7.4 | 9.8 | 228\% | 174\% |
| 57 | 15 | 18,983 | 0.0008 | 0.04\% | 0.05\% | 7.0 | 9.1 | 214\% | 164\% |
| 58 | 13 | 17,153 | 0.0008 | 0.04\% | 0.05\% | 6.5 | 8.3 | 199\% | 156\% |
| 59 | 16 | 15,162 | 0.0011 | 0.04\% | 0.05\% | 5.9 | 7.4 | 271\% | 217\% |
| 60 | 11 | 13,494 | 0.0008 | 0.04\% | 0.05\% | 5.4 | 6.6 | 204\% | 168\% |
| 61 | 9 | 11,593 | 0.0008 | 0.04\% | 0.05\% | 4.6 | 5.6 | 194\% | 160\% |
| 62 | 7 | 9,932 | 0.0007 | 0.04\% | 0.05\% | 4.0 | 4.8 | 176\% | 145\% |
| 63 | 5 | 7,566 | 0.0007 | 0.04\% | 0.05\% | 3.0 | 3.7 | 165\% | 136\% |
| 64 | 5 | 6,016 | 0.0008 | 0.04\% | 0.05\% | 2.4 | 2.9 | 208\% | 171\% |
| 65 | 1 | 4,659 | 0.0002 | 0.04\% | 0.05\% | 1.9 | 2.3 | 54\% | 44\% |
| 66 | 4 | 3,585 | 0.0011 | 0.04\% | 0.05\% | 1.4 | 1.7 | 279\% | 229\% |
| 67 | 1 | 2,714 | 0.0004 | 0.04\% | 0.05\% | 1.1 | 1.3 | 92\% | 76\% |
| 68 | 1 | 2,075 | 0.0005 | 0.04\% | 0.05\% | 0.8 | 1.0 | 120\% | 99\% |
| 69 | 1 | 1,555 | 0.0006 | 0.04\% | 0.05\% | 0.6 | 0.8 | 161\% | 132\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.05\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.05\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.05\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.05\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.05\% | 0 | 0 | 0\% | 0\% |
| Other | 1 | 7 | 0.1429 | 0.00\% | 0.05\% | 0 | 0.0 | 0\% | 29366\% |
| Total | 236 | 664,561 |  |  |  | 130.5 | 172.1 | 181\% | 137\% |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN

|  | TABLE 10A GROUPED |  |  | Assumed Probability $\quad \begin{gathered}\text { 8-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered} \quad$ Actual/ Expected |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | $\begin{gathered} \text { Proposed } \\ (8) /(3) \\ \hline \end{gathered}$ | Expected | Proposed | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 3,797 | 0.0000 | 0.00\% | 0.00\% | 0.1 | 0.1 | 0\% | 0\% |
| 25-29 | 0 | 20,874 | 0.0000 | 0.00\% | 0.00\% | 0.4 | 0.6 | 0\% | 0\% |
| 30-34 | 1 | 25,131 | 0.0000 | 0.00\% | 0.01\% | 1.1 | 1.5 | 90\% | 67\% |
| 35-39 | 4 | 24,683 | 0.0002 | 0.01\% | 0.02\% | 3.4 | 4.7 | 116\% | 86\% |
| 40-44 | 2 | 23,013 | 0.0001 | 0.02\% | 0.03\% | 5.1 | 6.8 | 40\% | 29\% |
| 45-49 | 12 | 24,282 | 0.0005 | 0.03\% | 0.04\% | 6.6 | 8.9 | 183\% | 135\% |
| 50-54 | 11 | 28,149 | 0.0004 | 0.03\% | 0.04\% | 9.0 | 12.2 | 122\% | 90\% |
| 55-59 | 26 | 28,948 | 0.0009 | 0.04\% | 0.05\% | 10.7 | 14.4 | 244\% | 181\% |
| 60-64 | 11 | 14,534 | 0.0008 | 0.04\% | 0.05\% | 5.8 | 7.8 | 189\% | 140\% |
| 65-69 | 4 | 4,800 | 0.0008 | 0.04\% | 0.05\% | 1.9 | 2.6 | 208\% | 154\% |
| 70-74 | 1 | 0 | N/A | 0.00\% |  | 0 | 0 | 0\% | 0\% |
| Other | 0 | 3 | 0.0000 | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 72 | 198,214 |  |  |  | 44.1 | 59.5 | 163\% | 121\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK
ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

|  | TABLE 10B GROUPED |  |  | Assumed Probability $\begin{gathered}\text { 8-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | $\begin{gathered} \text { Proposed } \\ (8) /(3) \\ \hline \end{gathered}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 15,961 | 0.0000 | 0.00\% | 0.01\% | 0.3 | 1.0 | 0\% | 0\% |
| 25-29 | 3 | 83,438 | 0.0000 | 0.00\% | 0.01\% | 1.7 | 7.6 | 180\% | 39\% |
| 30-34 | 2 | 84,066 | 0.0000 | 0.00\% | 0.01\% | 2.2 | 7.7 | 93\% | 26\% |
| 35-39 | 7 | 72,239 | 0.0001 | 0.01\% | 0.01\% | 5.0 | 6.6 | 139\% | 106\% |
| 40-44 | 11 | 71,002 | 0.0002 | 0.01\% | 0.01\% | 10.0 | 10.2 | 110\% | 108\% |
| 45-49 | 31 | 81,379 | 0.0004 | 0.02\% | 0.03\% | 19.7 | 23.1 | 158\% | 134\% |
| 50-54 | 59 | 99,124 | 0.0006 | 0.03\% | 0.04\% | 31.8 | 40.4 | 185\% | 146\% |
| 55-59 | 77 | 94,156 | 0.0008 | 0.04\% | 0.05\% | 34.7 | 44.8 | 222\% | 172\% |
| 60-64 | 37 | 48,601 | 0.0008 | 0.04\% | 0.05\% | 19.4 | 23.6 | 190\% | 156\% |
| 65-69 | 8 | 14,588 | 0.0005 | 0.04\% | 0.05\% | 5.8 | 7.1 | 137\% | 113\% |
| 70-74 | 0 | 0 | N/A | 0.00\% |  | 0 | 0 | 0\% | 0\% |
| Other | 1 | 7 | 0.1429 | 0.00\% | 0.05\% | 0 | 0.0 | 0\% | 29366\% |
| Total | 236 | 664,561 |  |  |  | 130.5 | 172.1 | 181\% | 137\% |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

 ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN| Plan <br> Year | TABLE 10C |  |  | 10-YEAR PER | Disability Rate |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending <br> June 30, | Life Years Exposed | Actual Disabilities | Expected Disabilities | Actual/ Expected | $\begin{aligned} & \text { Actual } \\ & \text { (3) / (2) } \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 97,941 | 29 | 21.3 | 136\% | 0.03\% | 0.02\% |
| 2005 | 105,685 | 51 | 21.5 | 238\% | 0.05\% | 0.02\% |
| 2006 | 106,017 | 23 | 21.3 | 108\% | 0.02\% | 0.02\% |
| 2007 | 110,383 | 59 | 21.8 | 270\% | 0.05\% | 0.02\% |
| 2008 | 109,319 | 27 | 21.7 | 124\% | 0.02\% | 0.02\% |
| 2009 | 111,368 | 42 | 22.1 | 190\% | 0.04\% | 0.02\% |
| 2010 | 111,875 | 40 | 22.3 | 180\% | 0.04\% | 0.02\% |
| 2011 | 110,187 | 43 | 22.7 | 189\% | 0.04\% | 0.02\% |
| 2012 | 108,326 | 29 | 22.5 | 129\% | 0.03\% | 0.02\% |
| 2013 | 111,009 | 7 | 22.9 | $31 \%$ | 0.01\% | 0.02\% |
| Total | 1,082,110 | 350 | 220.1 | 159\% | 0.03\% | 0.02\% |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

TABLE 11A

| Service | Life Years <br> Exposed | Total Salary BOY |  | Actual Salary EOY |  | Expected Salary EOY |  | Actual / Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 20,418 | \$ | 817,037,552 | \$ | 876,633,949 | \$ | 923,252,434 | 56\% | 7.29\% | 13.00\% |
| 1 | 21,787 |  | 1,061,780,812 |  | 1,127,754,376 |  | 1,178,576,701 | 56\% | 6.21\% | 11.00\% |
| 2 | 21,419 |  | 1,138,868,954 |  | 1,188,405,126 |  | 1,241,367,160 | 48\% | 4.35\% | 9.00\% |
| 3 | 23,972 |  | 1,320,907,921 |  | 1,370,324,772 |  | 1,426,580,555 | 47\% | 3.74\% | 8.00\% |
| 4 | 24,901 |  | 1,448,800,239 |  | 1,511,103,912 |  | 1,579,192,261 | 48\% | 4.30\% | 9.00\% |
| 5 | 24,171 |  | 1,522,002,609 |  | 1,606,751,725 |  | 1,643,762,818 | 70\% | 5.57\% | 8.00\% |
| 6 | 25,082 |  | 1,677,051,284 |  | 1,768,861,593 |  | 1,811,215,387 | 68\% | 5.47\% | 8.00\% |
| 7 | 24,127 |  | 1,689,576,771 |  | 1,755,569,550 |  | 1,807,847,145 | 56\% | 3.91\% | 7.00\% |
| 8 | 22,364 |  | 1,630,631,907 |  | 1,658,122,268 |  | 1,712,163,502 | 34\% | 1.69\% | 5.00\% |
| 9 | 19,950 |  | 1,469,483,220 |  | 1,499,970,728 |  | 1,587,041,878 | 600\% | 2.07\% | 8.00\% |
| 10 | 17,263 |  | 1,263,256,881 |  | 1,293,855,642 |  | 1,313,787,156 | 61\% | 2.42\% | 4.00\% |
| 11 | 16,016 |  | 1,180,188,918 |  | 1,195,513,157 |  | 1,227,396,475 | 32\% | 1.30\% | 4.00\% |
| 12 | 14,515 |  | 1,095,689,413 |  | 1,114,680,332 |  | 1,161,430,778 | 29\% | 1.73\% | 6.00\% |
| 13 | 12,625 |  | 977,394,262 |  | 996,577,280 |  | 1,016,490,032 | 49\% | 1.96\% | 4.00\% |
| 14 | 11,157 |  | 869,189,779 |  | 888,171,289 |  | 938,724,961 | 27\% | 2.18\% | 8.00\% |
| 15 | 10,092 |  | 792,348,242 |  | 811,989,992 |  | 824,042,172 | 62\% | 2.48\% | 4.00\% |
| 16 | 8,787 |  | 713,560,904 |  | 721,294,786 |  | 742,103,340 | 27\% | 1.08\% | 4.00\% |
| 17 | 8,562 |  | 689,608,174 |  | 698,559,314 |  | 724,088,583 | 26\% | 1.30\% | 5.00\% |
| 18 | 8,631 |  | 703,033,906 |  | 714,832,743 |  | 731,155,262 | 42\% | 1.68\% | 4.00\% |
| 19 | 8,639 |  | 711,983,348 |  | 732,219,694 |  | 797,421,350 | 24\% | 2.84\% | 12.00\% |
| 20 | 8,554 |  | 722,842,155 |  | 749,201,916 |  | 751,755,841 | 91\% | 3.65\% | 4.00\% |
| 21 | 8,139 |  | 721,129,553 |  | 735,943,991 |  | 778,819,917 | 26\% | 2.05\% | 8.00\% |
| 22 | 7,707 |  | 707,898,420 |  | 726,533,932 |  | 736,214,357 | 66\% | 2.63\% | 4.00\% |
| 23 | 7,412 |  | 704,293,470 |  | 709,811,649 |  | 732,465,209 | 20\% | 0.78\% | 4.00\% |
| 24 | 6,951 |  | 675,950,233 |  | 680,132,038 |  | 702,988,242 | 15\% | 0.62\% | 4.00\% |
| 25 | 5,904 |  | 580,393,347 |  | 583,725,779 |  | 603,609,081 | 14\% | 0.57\% | 4.00\% |
| 26 | 4,973 |  | 501,713,247 |  | 504,639,214 |  | 521,781,777 | 15\% | 0.58\% | 4.00\% |
| 27 | 4,060 |  | 412,778,264 |  | 415,161,512 |  | 429,289,395 | 14\% | 0.58\% | 4.00\% |
| 28 | 3,311 |  | 339,453,235 |  | 340,857,805 |  | 353,031,364 | 10\% | 0.41\% | 4.00\% |
| 29 | 2,740 |  | 280,121,001 |  | 281,585,173 |  | 291,325,841 | 13\% | 0.52\% | 4.00\% |
| 30+ | 2,203 |  | 230,321,699 |  | 231,546,055 |  | 239,534,567 | 13\% | 0.53\% | 4.00\% |
| Total | 406,432 |  | 28,649,289,720 |  | 29,490,331,292 |  | 30,528,455,540 | 45\% | 2.94\% | 6.56\% |

4-YEAR PERIOD ENDING 6/30/2013

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

TABLE 11A

| Life Years Exposed | Total Salary BOY |  | Actual Salary EOY |  | $\begin{gathered} \text { Proposed Salary } \\ \text { EOY } \\ \hline \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (2) |  | (3) |  | (4) |  | (5) |
| 20,418 | \$ | 817,037,552 | \$ | 876,633,949 | \$ | 923,252,434 |
| 21,787 |  | 1,061,780,812 |  | 1,127,754,376 |  | 1,178,576,701 |
| 21,419 |  | 1,138,868,954 |  | 1,188,405,126 |  | 1,241,367,160 |
| 23,972 |  | 1,320,907,921 |  | 1,370,324,772 |  | 1,426,580,555 |
| 24,901 |  | 1,448,800,239 |  | 1,511,103,912 |  | 1,579,192,261 |
| 24,171 |  | 1,522,002,609 |  | 1,606,751,725 |  | 1,643,762,818 |
| 25,082 |  | 1,677,051,284 |  | 1,768,861,593 |  | 1,811,215,387 |
| 24,127 |  | 1,689,576,771 |  | 1,755,569,550 |  | 1,807,847,145 |
| 22,364 |  | 1,630,631,907 |  | 1,658,122,268 |  | 1,712,163,502 |
| 19,950 |  | 1,469,483,220 |  | 1,499,970,728 |  | 1,587,041,878 |
| 17,263 |  | 1,263,256,881 |  | 1,293,855,642 |  | 1,313,787,156 |
| 16,016 |  | 1,180,188,918 |  | 1,195,513,157 |  | 1,227,396,475 |
| 14,515 |  | 1,095,689,413 |  | 1,114,680,332 |  | 1,161,430,778 |
| 12,625 |  | 977,394,262 |  | 996,577,280 |  | 1,016,490,032 |
| 11,157 |  | 869,189,779 |  | 888,171,289 |  | 938,724,961 |
| 10,092 |  | 792,348,242 |  | 811,989,992 |  | 824,042,172 |
| 8,787 |  | 713,560,904 |  | 721,294,786 |  | 742,103,340 |
| 8,562 |  | 689,608,174 |  | 698,559,314 |  | 724,088,583 |
| 8,631 |  | 703,033,906 |  | 714,832,743 |  | 731,155,262 |
| 8,639 |  | 711,983,348 |  | 732,219,694 |  | 797,421,350 |
| 8,554 |  | 722,842,155 |  | 749,201,916 |  | 751,755,841 |
| 8,139 |  | 721,129,553 |  | 735,943,991 |  | 778,819,917 |
| 7,707 |  | 707,898,420 |  | 726,533,932 |  | 736,214,357 |
| 7,412 |  | 704,293,470 |  | 709,811,649 |  | 732,465,209 |
| 6,951 |  | 675,950,233 |  | 680,132,038 |  | 702,988,242 |
| 5,904 |  | 580,393,347 |  | 583,725,779 |  | 603,609,081 |
| 4,973 |  | 501,713,247 |  | 504,639,214 |  | 521,781,777 |
| 4,060 |  | 412,778,264 |  | 415,161,512 |  | 429,289,395 |
| 3,311 |  | 339,453,235 |  | 340,857,805 |  | 353,031,364 |
| 2,740 |  | 280,121,001 |  | 281,585,173 |  | 291,325,841 |
| 2,203 |  | 230,321,699 |  | 231,546,055 |  | 239,534,567 |
| 406,432 |  | 28,649,289,720 |  | 29,490,331,292 |  | 30,528,455,540 |

4-YEAR PERIOD ENDING 6/30/2013

| Actual / Proposed | Increase \% |  |
| :---: | :---: | :---: |
|  | Actual \% | Proposed \% |
| (6) | (7) | (8) |
| 56\% | 7.29\% | 13.00\% |
| 56\% | 6.21\% | 11.00\% |
| 48\% | 4.35\% | 9.00\% |
| 47\% | 3.74\% | 8.00\% |
| 48\% | 4.30\% | 9.00\% |
| 70\% | 5.57\% | 8.00\% |
| 68\% | 5.47\% | 8.00\% |
| 56\% | 3.91\% | 7.00\% |
| 34\% | 1.69\% | 5.00\% |
| 600\% | 2.07\% | 8.00\% |
| 61\% | 2.42\% | 4.00\% |
| 32\% | 1.30\% | 4.00\% |
| 29\% | 1.73\% | 6.00\% |
| 49\% | 1.96\% | 4.00\% |
| 27\% | 2.18\% | 8.00\% |
| 62\% | 2.48\% | 4.00\% |
| 27\% | 1.08\% | 4.00\% |
| 26\% | 1.30\% | 5.00\% |
| 42\% | 1.68\% | 4.00\% |
| 24\% | 2.84\% | 12.00\% |
| 91\% | 3.65\% | 4.00\% |
| 26\% | 2.05\% | 8.00\% |
| 66\% | 2.63\% | 4.00\% |
| 20\% | 0.78\% | 4.00\% |
| 15\% | 0.62\% | 4.00\% |
| 14\% | 0.57\% | 4.00\% |
| 15\% | 0.58\% | 4.00\% |
| 14\% | 0.58\% | 4.00\% |
| 10\% | 0.41\% | 4.00\% |
| 13\% | 0.52\% | 4.00\% |
| 13\% | 0.53\% | 4.00\% |
| 45\% | 2.94\% | 6.56\% |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK <br> MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS

 MEN AND WOMENTABLE 11B
4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years <br> Exposed | Total Salary BOY |  | Estimated Actual Merit Salary EOY |  | Expected Merit Salary EOY |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 20,418 | \$ | 817,037,552 | \$ | 872,290,699 | \$ | 898,741,307 | 68\% | 6.76\% | 10.00\% |
| 1 | 21,787 |  | 1,061,780,812 |  | 1,122,110,107 |  | 1,146,723,277 | 71\% | 5.68\% | 8.00\% |
| 2 | 21,419 |  | 1,138,868,954 |  | 1,182,351,068 |  | 1,207,201,091 | 64\% | 3.82\% | 6.00\% |
| 3 | 23,972 |  | 1,320,907,921 |  | 1,363,303,021 |  | 1,386,953,317 | 64\% | $3.21 \%$ | 5.00\% |
| 4 | 24,901 |  | 1,448,800,239 |  | 1,503,402,305 |  | 1,535,728,253 | 63\% | $3.77 \%$ | 6.00\% |
| 5 | 24,171 |  | 1,522,002,609 |  | 1,598,660,985 |  | 1,598,102,739 | 101\% | 5.04\% | 5.00\% |
| 6 | 25,082 |  | 1,677,051,284 |  | 1,759,946,637 |  | 1,760,903,848 | 99\% | 4.94\% | 5.00\% |
| 7 | 24,127 |  | 1,689,576,771 |  | 1,746,588,010 |  | 1,757,159,842 | 84\% | 3.37\% | 4.00\% |
| 8 | 22,364 |  | 1,630,631,907 |  | 1,649,454,071 |  | 1,663,244,545 | 58\% | 1.15\% | 2.00\% |
| 9 | 19,950 |  | 1,469,483,220 |  | 1,492,159,173 |  | 1,542,957,381 | 31\% | 1.54\% | 5.00\% |
| 10 | 17,263 |  | 1,263,256,881 |  | 1,287,140,356 |  | 1,275,889,450 | 189\% | 1.89\% | 1.00\% |
| 11 | 16,016 |  | 1,180,188,918 |  | 1,189,239,448 |  | 1,191,990,807 | 77\% | 0.77\% | 1.00\% |
| 12 | 14,515 |  | 1,095,689,413 |  | 1,108,855,810 |  | 1,128,560,095 | 40\% | 1.20\% | 3.00\% |
| 13 | 12,625 |  | 977,394,262 |  | 991,381,597 |  | 987,168,205 | 143\% | 1.43\% | 1.00\% |
| 14 | 11,157 |  | 869,189,779 |  | 883,550,805 |  | 912,649,268 | 33\% | 1.65\% | 5.00\% |
| 15 | 10,092 |  | 792,348,242 |  | 807,777,986 |  | 800,271,724 | 195\% | 1.95\% | 1.00\% |
| 16 | 8,787 |  | 713,560,904 |  | 717,501,602 |  | 720,696,513 | 55\% | 0.55\% | 1.00\% |
| 17 | 8,562 |  | 689,608,174 |  | 694,893,459 |  | 703,400,337 | 38\% | 0.77\% | 2.00\% |
| 18 | 8,631 |  | 703,033,906 |  | 711,095,519 |  | 710,064,245 | 115\% | 1.15\% | 1.00\% |
| 19 | 8,639 |  | 711,983,348 |  | 728,434,896 |  | 776,061,849 | 26\% | 2.31\% | 9.00\% |
| 20 | 8,554 |  | 722,842,155 |  | 745,359,394 |  | 730,070,577 | 312\% | 3.12\% | 1.00\% |
| 21 | 8,139 |  | 721,129,553 |  | 732,110,573 |  | 757,186,031 | 30\% | 1.52\% | 5.00\% |
| 22 | 7,707 |  | 707,898,420 |  | 722,770,849 |  | 714,977,404 | 210\% | 2.10\% | 1.00\% |
| 23 | 7,412 |  | 704,293,470 |  | 706,067,729 |  | 711,336,405 | 25\% | 0.25\% | 1.00\% |
| 24 | 6,951 |  | 675,950,233 |  | 676,538,787 |  | 682,709,735 | 9\% | 0.09\% | 1.00\% |
| 25 | 5,904 |  | 580,393,347 |  | 580,640,494 |  | 586,197,280 | 4\% | 0.04\% | 1.00\% |
| 26 | 4,973 |  | 501,713,247 |  | 501,972,181 |  | 506,730,379 | 5\% | 0.05\% | 1.00\% |
| 27 | 4,060 |  | 412,778,264 |  | 412,967,244 |  | 416,906,047 | 5\% | 0.05\% | 1.00\% |
| 28 | 3,311 |  | 339,453,235 |  | 339,053,322 |  | 342,847,767 | -12\% | -0.12\% | 1.00\% |
| 29 | 2,740 |  | 280,121,001 |  | 280,096,091 |  | 282,922,211 | -1\% | -0.01\% | 1.00\% |
| 30+ | 2,203 |  | 230,321,699 |  | 230,321,699 |  | 232,624,916 |  | 0.00\% | 1.00\% |
| Total | 406,432 |  | 28,649,289,720 |  | 29,338,035,916 |  | 9,668,976,848 | 68\% | 2.40\% | 3.56\% |

The rates for expected merit salary increases are based on actual rates of increase for total salary, adjusted for inflation of $1.71 \%$.
Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK <br> MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS

 MEN AND WOMENTABLE 11B
4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years <br> Exposed | Total Salary BOY |  | Estimated Actual Merit Salary EOY |  | Proposed Merit Salary EOY |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 20,418 | \$ | 817,037,552 | \$ | 872,290,699 | \$ | 898,741,307 | 68\% | 6.76\% | 10.00\% |
| 1 | 21,787 |  | 1,061,780,812 |  | 1,122,110,107 |  | 1,146,723,277 | 71\% | 5.68\% | 8.00\% |
| 2 | 21,419 |  | 1,138,868,954 |  | 1,182,351,068 |  | 1,207,201,091 | 64\% | 3.82\% | 6.00\% |
| 3 | 23,972 |  | 1,320,907,921 |  | 1,363,303,021 |  | 1,386,953,317 | 64\% | $3.21 \%$ | 5.00\% |
| 4 | 24,901 |  | 1,448,800,239 |  | 1,503,402,305 |  | 1,535,728,253 | 63\% | 3.77\% | 6.00\% |
| 5 | 24,171 |  | 1,522,002,609 |  | 1,598,660,985 |  | 1,598,102,739 | 101\% | 5.04\% | 5.00\% |
| 6 | 25,082 |  | 1,677,051,284 |  | 1,759,946,637 |  | 1,760,903,848 | 99\% | 4.94\% | 5.00\% |
| 7 | 24,127 |  | 1,689,576,771 |  | 1,746,588,010 |  | 1,757,159,842 | 84\% | $3.37 \%$ | 4.00\% |
| 8 | 22,364 |  | 1,630,631,907 |  | 1,649,454,071 |  | 1,663,244,545 | 58\% | 1.15\% | 2.00\% |
| 9 | 19,950 |  | 1,469,483,220 |  | 1,492,159,173 |  | 1,542,957,381 | 31\% | 1.54\% | 5.00\% |
| 10 | 17,263 |  | 1,263,256,881 |  | 1,287,140,356 |  | 1,275,889,450 | 189\% | 1.89\% | 1.00\% |
| 11 | 16,016 |  | 1,180,188,918 |  | 1,189,239,448 |  | 1,191,990,807 | 77\% | 0.77\% | 1.00\% |
| 12 | 14,515 |  | 1,095,689,413 |  | 1,108,855,810 |  | 1,128,560,095 | 40\% | 1.20\% | 3.00\% |
| 13 | 12,625 |  | 977,394,262 |  | 991,381,597 |  | 987,168,205 | 143\% | 1.43\% | 1.00\% |
| 14 | 11,157 |  | 869,189,779 |  | 883,550,805 |  | 912,649,268 | 33\% | 1.65\% | 5.00\% |
| 15 | 10,092 |  | 792,348,242 |  | 807,777,986 |  | 800,271,724 | 195\% | 1.95\% | 1.00\% |
| 16 | 8,787 |  | 713,560,904 |  | 717,501,602 |  | 720,696,513 | 55\% | 0.55\% | 1.00\% |
| 17 | 8,562 |  | 689,608,174 |  | 694,893,459 |  | 703,400,337 | 38\% | 0.77\% | 2.00\% |
| 18 | 8,631 |  | 703,033,906 |  | 711,095,519 |  | 710,064,245 | 115\% | 1.15\% | 1.00\% |
| 19 | 8,639 |  | 711,983,348 |  | 728,434,896 |  | 776,061,849 | 26\% | 2.31\% | 9.00\% |
| 20 | 8,554 |  | 722,842,155 |  | 745,359,394 |  | 730,070,577 | 312\% | 3.12\% | 1.00\% |
| 21 | 8,139 |  | 721,129,553 |  | 732,110,573 |  | 757,186,031 | 30\% | 1.52\% | 5.00\% |
| 22 | 7,707 |  | 707,898,420 |  | 722,770,849 |  | 714,977,404 | 210\% | 2.10\% | 1.00\% |
| 23 | 7,412 |  | 704,293,470 |  | 706,067,729 |  | 711,336,405 | 25\% | 0.25\% | 1.00\% |
| 24 | 6,951 |  | 675,950,233 |  | 676,538,787 |  | 682,709,735 | 9\% | 0.09\% | 1.00\% |
| 25 | 5,904 |  | 580,393,347 |  | 580,640,494 |  | 586,197,280 | 4\% | 0.04\% | 1.00\% |
| 26 | 4,973 |  | 501,713,247 |  | 501,972,181 |  | 506,730,379 | 5\% | 0.05\% | 1.00\% |
| 27 | 4,060 |  | 412,778,264 |  | 412,967,244 |  | 416,906,047 | 5\% | 0.05\% | 1.00\% |
| 28 | 3,311 |  | 339,453,235 |  | 339,053,322 |  | 342,847,767 | -12\% | -0.12\% | 1.00\% |
| 29 | 2,740 |  | 280,121,001 |  | 280,096,091 |  | 282,922,211 | -1\% | -0.01\% | 1.00\% |
| 30+ | 2,203 |  | 230,321,699 |  | 230,321,699 |  | 232,624,916 |  | 0.00\% | 1.00\% |
| Total | 406,432 |  | 28,649,289,720 |  | 29,338,035,916 |  | 29,668,976,848 | 68\% | 2.40\% | 3.56\% |

Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

TABLE 11A

| Service | Life Years <br> Exposed | Total Salary BOY |  | Actual Salary EOY |  | Expected Salary EOY |  |  | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / Expected | Actual \% |  |  | Expected \% |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 35,700 | \$ | 1,414,000,593 | \$ | 1,535,904,139 | \$ | 1,597,820,670 | 66\% | 8.62\% | 13.00\% |
| 1 | 73,396 |  | 3,434,405,658 |  | 3,716,795,934 |  | 3,812,190,280 | 75\% | 8.22\% | 11.00\% |
| 2 | 83,024 |  | 4,100,039,439 |  | 4,400,172,863 |  | 4,469,042,989 | 81\% | 7.32\% | 9.00\% |
| 3 | 69,541 |  | 3,681,488,109 |  | 3,908,967,445 |  | 3,976,007,158 | 77\% | 6.18\% | 8.00\% |
| 4 | 67,405 |  | 3,774,411,365 |  | 4,025,997,658 |  | 4,114,108,388 | 74\% | 6.67\% | 9.00\% |
| 5 | 57,971 |  | 3,451,372,314 |  | 3,693,667,641 |  | 3,727,482,099 | 88\% | 7.02\% | 8.00\% |
| 6 | 55,336 |  | 3,442,180,618 |  | 3,676,778,141 |  | 3,717,555,067 | 85\% | 6.82\% | 8.00\% |
| 7 | 47,947 |  | 3,150,770,823 |  | 3,319,008,321 |  | 3,371,324,781 | 76\% | 5.34\% | 7.00\% |
| 8 | 44,699 |  | 3,026,734,985 |  | 3,130,428,155 |  | 3,178,071,734 | 69\% | 3.43\% | 5.00\% |
| 9 | 37,645 |  | 2,604,054,031 |  | 2,700,401,247 |  | 2,812,378,353 | 46\% | 3.70\% | 8.00\% |
| 10 | 35,069 |  | 2,422,258,790 |  | 2,521,450,683 |  | 2,519,149,142 | 102\% | 4.10\% | 4.00\% |
| 11 | 31,203 |  | 2,191,480,666 |  | 2,252,107,477 |  | 2,279,139,893 | 69\% | 2.77\% | 4.00\% |
| 12 | 30,259 |  | 2,140,997,177 |  | 2,211,601,228 |  | 2,269,457,008 | 55\% | 3.30\% | 6.00\% |
| 13 | 26,426 |  | 1,899,299,409 |  | 1,969,290,269 |  | 1,975,271,385 | 92\% | 3.69\% | 4.00\% |
| 14 | 26,776 |  | 1,919,432,498 |  | 1,996,061,098 |  | 2,072,987,098 | 50\% | 3.99\% | 8.00\% |
| 15 | 23,739 |  | 1,728,667,789 |  | 1,804,218,310 |  | 1,797,814,501 | 109\% | 4.37\% | 4.00\% |
| 16 | 24,040 |  | 1,792,700,563 |  | 1,850,691,419 |  | 1,864,408,586 | 81\% | 3.23\% | 4.00\% |
| 17 | 21,897 |  | 1,649,104,377 |  | 1,705,278,999 |  | 1,731,559,596 | 68\% | 3.41\% | 5.00\% |
| 18 | 23,198 |  | 1,772,088,874 |  | 1,838,669,905 |  | 1,842,972,429 | 94\% | 3.76\% | 4.00\% |
| 19 | 21,342 |  | 1,669,562,877 |  | 1,748,392,687 |  | 1,869,910,422 | 39\% | 4.72\% | 12.00\% |
| 20 | 21,546 |  | 1,737,048,123 |  | 1,841,290,278 |  | 1,806,530,048 | 150\% | 6.00\% | 4.00\% |
| 21 | 18,570 |  | 1,588,693,330 |  | 1,650,536,875 |  | 1,715,788,796 | 49\% | 3.89\% | 8.00\% |
| 22 | 18,746 |  | 1,655,960,689 |  | 1,733,152,419 |  | 1,722,199,117 | 117\% | 4.66\% | 4.00\% |
| 23 | 15,978 |  | 1,469,159,084 |  | 1,504,652,684 |  | 1,527,925,447 | 60\% | 2.42\% | 4.00\% |
| 24 | 15,267 |  | 1,425,310,182 |  | 1,458,689,691 |  | 1,482,322,589 | 59\% | 2.34\% | 4.00\% |
| 25 | 12,205 |  | 1,152,434,832 |  | 1,178,368,200 |  | 1,198,532,225 | 56\% | 2.25\% | 4.00\% |
| 26 | 11,276 |  | 1,077,765,217 |  | 1,105,046,016 |  | 1,120,875,826 | 63\% | 2.53\% | 4.00\% |
| 27 | 9,000 |  | 869,402,829 |  | 889,621,702 |  | 904,178,942 | 58\% | 2.33\% | 4.00\% |
| 28 | 8,351 |  | 805,571,746 |  | 826,848,377 |  | 837,794,616 | 66\% | 2.64\% | 4.00\% |
| 29 | 6,869 |  | 661,727,386 |  | 678,843,823 |  | 688,196,481 | 65\% | 2.59\% | 4.00\% |
| 30+ | 6,147 |  | 589,274,275 |  | 603,935,057 |  | 612,845,246 | 62\% | 2.49\% | 4.00\% |
| Total | 980,568 |  | 64,297,398,648 |  | 67,476,868,741 |  | 68,615,840,912 | 74\% | 4.94\% | 6.72\% |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

TABLE 11A 10-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years <br> Exposed | Total Salary BOY |  | Actual Salary EOY |  | Proposed Salary EOY |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 35,700 | \$ | 1,414,000,593 | \$ | 1,535,904,139 | \$ | 1,597,820,670 | 66\% | 8.62\% | 13.00\% |
| 1 | 73,396 |  | 3,434,405,658 |  | 3,716,795,934 |  | 3,812,190,280 | 75\% | 8.22\% | 11.00\% |
| 2 | 83,024 |  | 4,100,039,439 |  | 4,400,172,863 |  | 4,469,042,989 | 81\% | 7.32\% | 9.00\% |
| 3 | 69,541 |  | 3,681,488,109 |  | 3,908,967,445 |  | 3,976,007,158 | 77\% | 6.18\% | 8.00\% |
| 4 | 67,405 |  | 3,774,411,365 |  | 4,025,997,658 |  | 4,114,108,388 | 74\% | 6.67\% | 9.00\% |
| 5 | 57,971 |  | 3,451,372,314 |  | 3,693,667,641 |  | 3,727,482,099 | 88\% | 7.02\% | 8.00\% |
| 6 | 55,336 |  | 3,442,180,618 |  | 3,676,778,141 |  | 3,717,555,067 | 85\% | 6.82\% | 8.00\% |
| 7 | 47,947 |  | 3,150,770,823 |  | 3,319,008,321 |  | 3,371,324,781 | 76\% | 5.34\% | 7.00\% |
| 8 | 44,699 |  | 3,026,734,985 |  | 3,130,428,155 |  | 3,178,071,734 | 69\% | 3.43\% | 5.00\% |
| 9 | 37,645 |  | 2,604,054,031 |  | 2,700,401,247 |  | 2,812,378,353 | 46\% | 3.70\% | 8.00\% |
| 10 | 35,069 |  | 2,422,258,790 |  | 2,521,450,683 |  | 2,519,149,142 | 102\% | 4.10\% | 4.00\% |
| 11 | 31,203 |  | 2,191,480,666 |  | 2,252,107,477 |  | 2,279,139,893 | 69\% | 2.77\% | 4.00\% |
| 12 | 30,259 |  | 2,140,997,177 |  | 2,211,601,228 |  | 2,269,457,008 | 55\% | 3.30\% | 6.00\% |
| 13 | 26,426 |  | 1,899,299,409 |  | 1,969,290,269 |  | 1,975,271,385 | 92\% | 3.69\% | 4.00\% |
| 14 | 26,776 |  | 1,919,432,498 |  | 1,996,061,098 |  | 2,072,987,098 | 50\% | 3.99\% | 8.00\% |
| 15 | 23,739 |  | 1,728,667,789 |  | 1,804,218,310 |  | 1,797,814,501 | 109\% | 4.37\% | 4.00\% |
| 16 | 24,040 |  | 1,792,700,563 |  | 1,850,691,419 |  | 1,864,408,586 | 81\% | 3.23\% | 4.00\% |
| 17 | 21,897 |  | 1,649,104,377 |  | 1,705,278,999 |  | 1,731,559,596 | 68\% | 3.41\% | 5.00\% |
| 18 | 23,198 |  | 1,772,088,874 |  | 1,838,669,905 |  | 1,842,972,429 | 94\% | 3.76\% | 4.00\% |
| 19 | 21,342 |  | 1,669,562,877 |  | 1,748,392,687 |  | 1,869,910,422 | 39\% | 4.72\% | 12.00\% |
| 20 | 21,546 |  | 1,737,048,123 |  | 1,841,290,278 |  | 1,806,530,048 | 150\% | 6.00\% | 4.00\% |
| 21 | 18,570 |  | 1,588,693,330 |  | 1,650,536,875 |  | 1,715,788,796 | 49\% | 3.89\% | 8.00\% |
| 22 | 18,746 |  | 1,655,960,689 |  | 1,733,152,419 |  | 1,722,199,117 | 117\% | 4.66\% | 4.00\% |
| 23 | 15,978 |  | 1,469,159,084 |  | 1,504,652,684 |  | 1,527,925,447 | 60\% | 2.42\% | 4.00\% |
| 24 | 15,267 |  | 1,425,310,182 |  | 1,458,689,691 |  | 1,482,322,589 | 59\% | 2.34\% | 4.00\% |
| 25 | 12,205 |  | 1,152,434,832 |  | 1,178,368,200 |  | 1,198,532,225 | 56\% | 2.25\% | 4.00\% |
| 26 | 11,276 |  | 1,077,765,217 |  | 1,105,046,016 |  | 1,120,875,826 | 63\% | 2.53\% | 4.00\% |
| 27 | 9,000 |  | 869,402,829 |  | 889,621,702 |  | 904,178,942 | 58\% | 2.33\% | 4.00\% |
| 28 | 8,351 |  | 805,571,746 |  | 826,848,377 |  | 837,794,616 | 66\% | 2.64\% | 4.00\% |
| 29 | 6,869 |  | 661,727,386 |  | 678,843,823 |  | 688,196,481 | 65\% | 2.59\% | 4.00\% |
| 30+ | 6,147 |  | 589,274,275 |  | 603,935,057 |  | 612,845,246 | 62\% | 2.49\% | 4.00\% |
| Total | 980,568 |  | 64,297,398,648 |  | 67,476,868,741 |  | 68,615,840,912 | 74\% | 4.94\% | 6.72\% |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK <br> MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

TABLE 11B

| Service | Life Years <br> Exposed | Total Salary BOY |  | Estimated Actual Merit Salary EOY |  | Expected Merit Salary EOY |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 35,700 | \$ | 1,414,000,593 | \$ | 1,478,664,632 | \$ | 1,555,400,652 | 46\% | 4.57\% | 10.00\% |
| 1 | 73,396 |  | 3,434,405,658 |  | 3,545,138,096 |  | 3,709,158,111 | 40\% | 3.22\% | 8.00\% |
| 2 | 83,024 |  | 4,100,039,439 |  | 4,170,183,136 |  | 4,346,041,805 | 29\% | 1.71\% | 6.00\% |
| 3 | 69,541 |  | 3,681,488,109 |  | 3,719,238,276 |  | 3,865,562,514 | 21\% | 1.03\% | 5.00\% |
| 4 | 67,405 |  | 3,774,411,365 |  | 3,830,610,095 |  | 4,000,876,047 | 25\% | 1.49\% | 6.00\% |
| 5 | 57,971 |  | 3,451,372,314 |  | 3,525,363,981 |  | 3,623,940,930 | 43\% | 2.14\% | 5.00\% |
| 6 | 55,336 |  | 3,442,180,618 |  | 3,515,840,547 |  | 3,614,289,649 | 43\% | 2.14\% | 5.00\% |
| 7 | 47,947 |  | 3,150,770,823 |  | 3,171,896,430 |  | 3,276,801,656 | 17\% | 0.67\% | 4.00\% |
| 8 | 44,699 |  | 3,026,734,985 |  | 2,995,053,267 |  | 3,087,269,685 | -52\% | -1.05\% | 2.00\% |
| 9 | 37,645 |  | 2,604,054,031 |  | 2,587,868,075 |  | 2,734,256,733 | -12\% | -0.62\% | 5.00\% |
| 10 | 35,069 |  | 2,422,258,790 |  | 2,411,491,937 |  | 2,446,481,378 | -44\% | -0.44\% | 1.00\% |
| 11 | 31,203 |  | 2,191,480,666 |  | 2,156,165,856 |  | 2,213,395,473 | -161\% | -1.61\% | 1.00\% |
| 12 | 30,259 |  | 2,140,997,177 |  | 2,113,673,776 |  | 2,205,227,092 | -43\% | -1.28\% | 3.00\% |
| 13 | 26,426 |  | 1,899,299,409 |  | 1,882,857,308 |  | 1,918,292,403 | -87\% | -0.87\% | 1.00\% |
| 14 | 26,776 |  | 1,919,432,498 |  | 1,903,381,805 |  | 2,015,404,123 | -17\% | -0.84\% | 5.00\% |
| 15 | 23,739 |  | 1,728,667,789 |  | 1,721,693,659 |  | 1,745,954,467 | -40\% | -0.40\% | 1.00\% |
| 16 | 24,040 |  | 1,792,700,563 |  | 1,761,062,372 |  | 1,810,627,569 | -176\% | -1.76\% | 1.00\% |
| 17 | 21,897 |  | 1,649,104,377 |  | 1,624,565,499 |  | 1,682,086,465 | -74\% | -1.49\% | 2.00\% |
| 18 | 23,198 |  | 1,772,088,874 |  | 1,750,030,609 |  | 1,789,809,763 | -124\% | -1.24\% | 1.00\% |
| 19 | 21,342 |  | 1,669,562,877 |  | 1,667,559,514 |  | 1,819,823,536 | -1\% | -0.12\% | 9.00\% |
| 20 | 21,546 |  | 1,737,048,123 |  | 1,754,914,952 |  | 1,754,418,604 | 103\% | 1.03\% | 1.00\% |
| 21 | 18,570 |  | 1,588,693,330 |  | 1,574,590,699 |  | 1,668,127,997 | -18\% | -0.89\% | 5.00\% |
| 22 | 18,746 |  | 1,655,960,689 |  | 1,651,357,804 |  | 1,672,520,296 | -28\% | -0.28\% | 1.00\% |
| 23 | 15,978 |  | 1,469,159,084 |  | 1,469,159,084 |  | 1,483,850,675 |  | 0.00\% | 1.00\% |
| 24 | 15,267 |  | 1,425,310,182 |  | 1,425,310,182 |  | 1,439,563,284 |  | 0.00\% | 1.00\% |
| 25 | 12,205 |  | 1,152,434,832 |  | 1,152,434,832 |  | 1,163,959,180 |  | 0.00\% | 1.00\% |
| 26 | 11,276 |  | 1,077,765,217 |  | 1,077,765,217 |  | 1,088,542,869 |  | 0.00\% | 1.00\% |
| 27 | 9,000 |  | 869,402,829 |  | 869,402,829 |  | 878,096,857 |  | 0.00\% | 1.00\% |
| 28 | 8,351 |  | 805,571,746 |  | 805,571,746 |  | 813,627,463 |  | 0.00\% | 1.00\% |
| 29 | 6,869 |  | 661,727,386 |  | 661,727,386 |  | 668,344,660 |  | 0.00\% | 1.00\% |
| 30+ | 6,147 |  | 589,274,275 |  | 589,274,275 |  | 595,167,018 |  | 0.00\% | 1.00\% |
| Total | 980,568 |  | 64,297,398,648 |  | 64,563,847,879 |  | 66,686,918,952 | 11\% | 0.41\% | 3.72\% |

The rates for expected merit salary increases are based on actual rates of increase for total salary, adjusted for inflation of $2.43 \%$.
Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK <br> MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

TABLE 11B

| Service | Life Years <br> Exposed | Total Salary BOY |  | Estimated Actual Merit Salary EOY |  |  |  |  | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | oposed Merit <br> Salary EOY | Actual / <br> Proposed | Actual \% | Proposed \% |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 35,700 | \$ | 1,414,000,593 | \$ | 1,478,664,632 | \$ | 1,555,400,652 | 46\% | 4.57\% | 10.00\% |
| 1 | 73,396 |  | 3,434,405,658 |  | 3,545,138,096 |  | 3,709,158,111 | 40\% | 3.22\% | 8.00\% |
| 2 | 83,024 |  | 4,100,039,439 |  | 4,170,183,136 |  | 4,346,041,805 | 29\% | 1.71\% | 6.00\% |
| 3 | 69,541 |  | 3,681,488,109 |  | 3,719,238,276 |  | 3,865,562,514 | 21\% | 1.03\% | 5.00\% |
| 4 | 67,405 |  | 3,774,411,365 |  | 3,830,610,095 |  | 4,000,876,047 | 25\% | 1.49\% | 6.00\% |
| 5 | 57,971 |  | 3,451,372,314 |  | 3,525,363,981 |  | 3,623,940,930 | 43\% | 2.14\% | 5.00\% |
| 6 | 55,336 |  | 3,442,180,618 |  | 3,515,840,547 |  | 3,614,289,649 | 43\% | 2.14\% | 5.00\% |
| 7 | 47,947 |  | 3,150,770,823 |  | 3,171,896,430 |  | 3,276,801,656 | 17\% | 0.67\% | 4.00\% |
| 8 | 44,699 |  | 3,026,734,985 |  | 2,995,053,267 |  | 3,087,269,685 | -52\% | -1.05\% | 2.00\% |
| 9 | 37,645 |  | 2,604,054,031 |  | 2,587,868,075 |  | 2,734,256,733 | -12\% | -0.62\% | 5.00\% |
| 10 | 35,069 |  | 2,422,258,790 |  | 2,411,491,937 |  | 2,446,481,378 | -44\% | -0.44\% | 1.00\% |
| 11 | 31,203 |  | 2,191,480,666 |  | 2,156,165,856 |  | 2,213,395,473 | -161\% | -1.61\% | 1.00\% |
| 12 | 30,259 |  | 2,140,997,177 |  | 2,113,673,776 |  | 2,205,227,092 | -43\% | -1.28\% | 3.00\% |
| 13 | 26,426 |  | 1,899,299,409 |  | 1,882,857,308 |  | 1,918,292,403 | -87\% | -0.87\% | 1.00\% |
| 14 | 26,776 |  | 1,919,432,498 |  | 1,903,381,805 |  | 2,015,404,123 | -17\% | -0.84\% | 5.00\% |
| 15 | 23,739 |  | 1,728,667,789 |  | 1,721,693,659 |  | 1,745,954,467 | -40\% | -0.40\% | 1.00\% |
| 16 | 24,040 |  | 1,792,700,563 |  | 1,761,062,372 |  | 1,810,627,569 | -176\% | -1.76\% | 1.00\% |
| 17 | 21,897 |  | 1,649,104,377 |  | 1,624,565,499 |  | 1,682,086,465 | -74\% | -1.49\% | 2.00\% |
| 18 | 23,198 |  | 1,772,088,874 |  | 1,750,030,609 |  | 1,789,809,763 | -124\% | -1.24\% | 1.00\% |
| 19 | 21,342 |  | 1,669,562,877 |  | 1,667,559,514 |  | 1,819,823,536 | -1\% | -0.12\% | 9.00\% |
| 20 | 21,546 |  | 1,737,048,123 |  | 1,754,914,952 |  | 1,754,418,604 | 103\% | 1.03\% | 1.00\% |
| 21 | 18,570 |  | 1,588,693,330 |  | 1,574,590,699 |  | 1,668,127,997 | -18\% | -0.89\% | 5.00\% |
| 22 | 18,746 |  | 1,655,960,689 |  | 1,651,357,804 |  | 1,672,520,296 | -28\% | -0.28\% | 1.00\% |
| 23 | 15,978 |  | 1,469,159,084 |  | 1,469,159,084 |  | 1,483,850,675 |  | 0.00\% | 1.00\% |
| 24 | 15,267 |  | 1,425,310,182 |  | 1,425,310,182 |  | 1,439,563,284 |  | 0.00\% | 1.00\% |
| 25 | 12,205 |  | 1,152,434,832 |  | 1,152,434,832 |  | 1,163,959,180 |  | 0.00\% | 1.00\% |
| 26 | 11,276 |  | 1,077,765,217 |  | 1,077,765,217 |  | 1,088,542,869 |  | 0.00\% | 1.00\% |
| 27 | 9,000 |  | 869,402,829 |  | 869,402,829 |  | 878,096,857 |  | 0.00\% | 1.00\% |
| 28 | 8,351 |  | 805,571,746 |  | 805,571,746 |  | 813,627,463 |  | 0.00\% | 1.00\% |
| 29 | 6,869 |  | 661,727,386 |  | 661,727,386 |  | 668,344,660 |  | 0.00\% | 1.00\% |
| 30+ | 6,147 |  | 589,274,275 |  | 589,274,275 |  | 595,167,018 |  | 0.00\% | 1.00\% |
| Total | 980,568 |  | 64,297,398,648 |  | 64,563,847,879 |  | 66,686,918,952 | $11 \%$ | 0.41\% | 3.72\% |

TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK
TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| $\begin{aligned} & \text { Plan } \\ & \text { Year } \end{aligned}$ | TABLE 11C |  |  | Actual Salary EOY |  | Expected Salary EOY |  | YEAR PERIO | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending <br> June 30, | Life Years Exposed | Total Salary BOY |  |  |  | Actual/ <br> Expected | Actual (4) / (3) | Expected $(5) /(3)$ |
| (1) | (2) |  | (3) |  | (4) |  |  |  | (5) | (5) | (6) | (7) |
| 2004 | 89,433 | \$ | 5,216,945,757 | \$ | 5,489,254,947 | \$ | 5,554,523,365 | 81\% | 5.22\% | 6.47\% |
| 2005 | 96,218 |  | 5,644,178,251 |  | 5,927,158,025 |  | 6,033,606,535 | 73\% | 5.01\% | 6.90\% |
| 2006 | 99,527 |  | 5,913,664,494 |  | 6,501,851,636 |  | 6,314,080,223 | 147\% | 9.95\% | 6.77\% |
| 2007 | 101,314 |  | 6,444,264,715 |  | 6,808,488,361 |  | 6,881,506,968 | 83\% | 5.65\% | 6.78\% |
| 2008 | 100,532 |  | 6,642,063,889 |  | 7,339,306,145 |  | 7,086,171,204 | 157\% | 10.50\% | 6.69\% |
| 2009 | 104,175 |  | 7,345,603,315 |  | 7,542,321,656 |  | 7,838,453,029 | 40\% | 2.68\% | 6.71\% |
| 2010 | 105,524 |  | 7,463,966,905 |  | 7,661,247,669 |  | 7,959,206,753 | 40\% | 2.64\% | 6.64\% |
| 2011 | 103,524 |  | 7,376,566,980 |  | 7,565,241,963 |  | 7,854,429,797 | 39\% | 2.56\% | 6.48\% |
| 2012 | 101,655 |  | 7,289,792,399 |  | 7,532,468,712 |  | 7,757,023,221 | 52\% | 3.33\% | 6.41\% |
| 2013 | 104,029 |  | 7,389,626,395 |  | 7,606,438,503 |  | 7,863,285,246 | 46\% | 2.93\% | 6.41\% |
| Total | 1,005,931 |  | 66,726,673,100 |  | 69,973,777,617 |  | 71,142,286,342 | 74\% | 4.87\% | 6.62\% |

## TEACHERS' RETIREMENT SYSTEM OF THE CITY OF NEW YORK

## OVERTIME PAY EXPERIENCE FOR ALL YEARS

 MEN AND WOMEN


| Table Number | Table Type | NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM EXPERIENCE STUDY RESULTS OVERVIEW |  |  |  |  | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 4-YEAR PERIOD ENDING 6/30/2013* |  | 10-YEAR PERIOD ENDING 6/30/2013* |  |  |  |
|  |  |  | Average Number of Decrements per Year | Ratio of Actual to |  | Average Number of Decrements per Year |  |
|  |  | Expected |  | Expected | Proposed |  |  |
| Active Member Ordinary Mortality |  | 59\% | 7 | 82\% | 82\% | 9 | Experience has been volatile, but appears to be consistently lower than the current assumption. |
| 8 A |  |  |  |  |  |  |  |
| 8B | Women | 41\% | 13 | 66\% | 66\% | 19 |  |
| 8 C | By Year |  |  |  |  |  |  |
|  | Active Member Ordinary DisabilityMen | 42\%$39 \%$ | 927 | 58\% | $68 \%$$69 \%$ | 1132 | Ordinary Disability experience appears lower than the current assumption. The proposed assumption is $85 \%$ for males and $70 \%$ females of the current assumption. |
| 9A |  |  |  |  |  |  |  |
| 9B | Women |  |  |  |  |  |  |
| 9 C | By Year |  |  |  |  |  |  |
| 10A10B10 C | Active Member Accidental DisabilityMenWomenBy Year | $\begin{gathered} 37 \% \\ 129 \% \end{gathered}$ | 15 | $\begin{array}{r} 96 \% \\ 130 \% \end{array}$ | $\begin{array}{r} 96 \% \\ 130 \% \end{array}$ | 25 | Volatile experience with insufficient actuals to determine if changing the assumption is appropriate. The current assumption appears reasonable given the data over the experience period. |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  | Salary Increases** | Expected | Actual | Expected | Proposed | Actual | Merit component is slightly higher than actual experience. Productivity component has been significantly lower than expected and may need adjustment. |
| 11A | Total | 5.21\% | 1.53\% | 5.20\% | 4.37\% | 3.74\% |  |
| 11B | Merit Only | 2.21\% | 0.68\% | 2.20\% | 1.37\% | 1.54\% |  |
|  | General Increase over Inflation | 0.50\% | -0.86\% | 0.50\% | 0.50\% | -0.23\% |  |
| 11C | By Year |  |  |  |  |  |  |
|  | * Four-year and eight-year periods ending 6/30/2011 were studied for the Withdrawal and Disability Decrements. |  |  |  |  |  |  |
|  | For Salary Increases, average annu | crease in sal |  |  |  |  |  |

## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM WITHDRAWAL ASSUMPTIONS AND EXPERIENCE FOR THE EIGHT-YEAR PERIOD ENDING 6/30/2011




## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM RETIREMENT ASSUMPTIONS AND EXPERIENCE FOR THE FOUR-YEAR PERIOD ENDING 6/30/2013




## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM

RETIREMENT ASSUMPTIONS AND EXPERIENCE
FOR THE FOUR-YEAR PERIOD ENDING 6/30/2013



## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM

ORDINARY DISABILITY ASSUMPTIONS AND EXPERIENCE FOR THE EIGHT-YEAR PERIOD ENDING 6/30/2011


## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

| Age | TABLE 1A |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \begin{array}{l} \text { (2) } /(3) \end{array} \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 0 | N/A | 0.1630\% | 0.0847\% | 0 | 0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.2118\% | 0.0924\% | 0 | 0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.2598\% | 0.1007\% | 0 | 0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.3070\% | 0.1096\% | 0 | 0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.3535\% | 0.1191\% | 0 | 0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.3991\% | 0.1291\% | 0 | 0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.4441\% | 0.1397\% | 0 | 0 | 0\% | 0\% |
| 48 | 0 | 1 | 0.000000 | 0.4881\% | 0.1509\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.5315\% | 0.1626\% | 0 | 0 | 0\% | 0\% |
| 50 | 0 | 1 | 0.000000 | 0.5742\% | 0.1753\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 2 | 0.000000 | 0.6206\% | 0.1892\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 6 | 0.000000 | 0.6636\% | 0.2050\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 5 | 0.000000 | 0.7091\% | 0.2229\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 0 | 5 | 0.000000 | 0.7521\% | 0.2434\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 0 | 8 | 0.000000 | 0.7991\% | 0.2671\% | 0.1 | 0.0 | 0\% | 0\% |
| 56 | 0 | 26 | 0.000000 | 0.8412\% | 0.2942\% | 0.2 | 0.1 | 0\% | 0\% |
| 57 | 0 | 40 | 0.000000 | 0.8815\% | 0.3252\% | 0.4 | 0.1 | 0\% | 0\% |
| 58 | 1 | 80 | 0.012500 | 0.9199\% | 0.3606\% | 0.7 | 0.3 | 136\% | 347\% |
| 59 | 0 | 114 | 0.000000 | 0.9486\% | 0.4008\% | 1.1 | 0.5 | 0\% | 0\% |
| 60 | 3 | 146 | 0.020548 | 0.9750\% | 0.4462\% | 1.4 | 0.7 | 211\% | 460\% |
| 61 | 3 | 169 | 0.017751 | 1.0704\% | 0.4973\% | 1.8 | 0.8 | 166\% | 357\% |
| 62 | 2 | 215 | 0.009302 | 1.1521\% | 0.5543\% | 2.5 | 1.2 | 81\% | 168\% |
| 63 | 5 | 279 | 0.017921 | 1.2380\% | 0.6177\% | 3.5 | 1.7 | 145\% | 290\% |
| 64 | 2 | 304 | 0.006579 | 1.3090\% | 0.6884\% | 4.0 | 2.1 | 50\% | 96\% |
| 65 | 4 | 323 | 0.012384 | 1.3739\% | 0.7672\% | 4.4 | 2.5 | 90\% | 161\% |
| 66 | 4 | 347 | 0.011527 | 1.5210\% | 0.8551\% | 5.3 | 3.0 | 76\% | 135\% |
| 67 | 5 | 393 | 0.012723 | 1.6603\% | 0.9529\% | 6.5 | 3.7 | 77\% | 134\% |
| 68 | 9 | 425 | 0.021176 | 1.7882\% | 1.0620\% | 7.6 | 4.5 | 118\% | 199\% |
| 69 | 4 | 391 | 0.010230 | 1.9328\% | 1.1836\% | 7.6 | 4.6 | 53\% | 86\% |
| 70 | 4 | 384 | 0.010417 | 2.0637\% | 1.3191\% | 7.9 | 5.1 | 50\% | 79\% |
| 71 | 8 | 385 | 0.020779 | 2.2207\% | 1.4701\% | 8.5 | 5.7 | 94\% | 141\% |
| 72 | 5 | 374 | 0.013369 | 2.3779\% | 1.6384\% | 8.9 | 6.1 | 56\% | 82\% |
| 73 | 6 | 381 | 0.015748 | 2.5349\% | 1.8260\% | 9.7 | 7.0 | 62\% | 86\% |
| 74 | 7 | 396 | 0.017677 | 2.6919\% | 2.0350\% | 10.7 | 8.1 | 66\% | 87\% |
| 75 | 11 | 391 | 0.028133 | 2.8722\% | 2.2680\% | 11.2 | 8.9 | 98\% | 124\% |
| 76 | 10 | 356 | 0.028090 | 3.2726\% | 2.5276\% | 11.7 | 9.0 | 86\% | 111\% |
| 77 | 14 | 351 | 0.039886 | 3.7029\% | 2.8169\% | 13.0 | 9.9 | 108\% | 142\% |
| 78 | 7 | 335 | 0.020896 | 4.1400\% | 3.1394\% | 13.9 | 10.5 | 50\% | 67\% |
| 79 | 14 | 326 | 0.042945 | 4.5838\% | 3.4988\% | 14.9 | 11.4 | 94\% | 123\% |
| 80 | 8 | 325 | 0.024615 | 5.0346\% | 3.8993\% | 16.4 | 12.7 | 49\% | 63\% |
| 81 | 15 | 339 | 0.044248 | 5.6554\% | 4.3457\% | 19.2 | 14.7 | 78\% | 102\% |
| 82 | 20 | 320 | 0.062500 | 6.2995\% | 4.8432\% | 20.2 | 15.5 | 99\% | 129\% |
| 83 | 15 | 277 | 0.054152 | 6.9112\% | 5.3976\% | 19.1 | 15.0 | 78\% | 100\% |
| 84 | 21 | 247 | 0.085020 | 7.5976\% | 6.0155\% | 18.8 | 14.9 | 112\% | 141\% |
| 85 | 13 | 212 | 0.061321 | 8.2418\% | 6.7041\% | 17.5 | 14.2 | 74\% | 91\% |
| 86 | 10 | 198 | 0.050505 | 9.0999\% | 7.4716\% | 18.0 | 14.8 | 56\% | 68\% |
| 87 | 15 | 177 | 0.084746 | 10.0385\% | 8.3269\% | 17.8 | 14.7 | 84\% | 102\% |
| 88 | 14 | 153 | 0.091503 | 10.9916\% | 9.2801\% | 16.8 | 14.2 | 83\% | 99\% |
| 89 | 9 | 129 | 0.069767 | 11.8637\% | 10.3425\% | 15.3 | 13.3 | 59\% | 67\% |
| 90 | 7 | 90 | 0.077778 | 12.8387\% | 11.5264\% | 11.6 | 10.4 | 61\% | 67\% |
| 91 | 4 | 64 | 0.062500 | 14.6403\% | 12.8459\% | 9.4 | 8.2 | 43\% | 49\% |
| 92 | 2 | 49 | 0.040816 | 16.6162\% | 14.3165\% | 8.1 | 7.0 | 25\% | 29\% |
| 93 | 7 | 45 | 0.155556 | 18.5137\% | 15.9554\% | 8.3 | 7.2 | 84\% | 97\% |
| 94 | 5 | 34 | 0.147059 | 20.4883\% | 17.7819\% | 7.0 | 6.0 | 72\% | 83\% |
| 95 | 2 | 26 | 0.076923 | 22.7677\% | 19.8175\% | 5.9 | 5.2 | 34\% | 39\% |
| 96 | 4 | 21 | 0.190476 | 24.8975\% | 22.0861\% | 5.2 | 4.6 | 77\% | 86\% |
| 97 | 2 | 11 | 0.181818 | 27.0655\% | 24.6145\% | 3.0 | 2.7 | 67\% | 74\% |
| 98 | 3 | 5 | 0.600000 | 29.5948\% | 27.4322\% | 1.5 | 1.4 | 203\% | 219\% |
| 99 | 1 | 4 | 0.250000 | 31.8308\% | 30.5726\% | 1.3 | 1.2 | 79\% | 82\% |
| Subtotal | 305 | 9,685 |  |  |  | 397.7 | 305.3 | 77\% | 100\% |
| 100 or more | 0 | 5 | 0.000000 | 37.1685\% | 42.3198\% | 1.9 | 2.1 | 0\% | 0\% |
| Total | 305 | 9,690 |  |  |  | 399.6 | 307.4 | 76\% | 99\% |

## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM MORTALITY EXPERIENCE OF SERVICE RETIREES WOMEN

| Age | TABLE 1B |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013Expected DeathsActual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 0 | N/A | 0.0652\% | 0.0699\% | 0 | 0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.0724\% | 0.0750\% | 0 | 0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.0813\% | 0.0801\% | 0 | 0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.0921\% | 0.0852\% | 0 | 0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.1042\% | 0.0903\% | 0 | 0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.1182\% | 0.0953\% | 0 | 0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.1336\% | 0.1002\% | 0 | 0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.1515\% | 0.1050\% | 0 | 0 | 0\% | 0\% |
| 49 | 0 | 1 | 0.000000 | 0.1706\% | 0.1096\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 1 | 2 | 0.500000 | 0.1922\% | 0.1152\% | 0.0 | 0.0 | 26015\% | 43403\% |
| 51 | 0 | 0 | N/A | 0.2141\% | 0.1221\% | 0 | 0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.2390\% | 0.1306\% | 0 | 0 | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 0.2657\% | 0.1408\% | 0 | 0 | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 0.2940\% | 0.1532\% | 0 | 0 | 0\% | 0\% |
| 55 | 0 | 13 | 0.000000 | 0.3240\% | 0.1679\% | 0.0 | 0.0 | 0\% | 0\% |
| 56 | 0 | 88 | 0.000000 | 0.3704\% | 0.1852\% | 0.3 | 0.2 | 0\% | 0\% |
| 57 | 0 | 172 | 0.000000 | 0.4164\% | 0.2054\% | 0.7 | 0.4 | 0\% | 0\% |
| 58 | 1 | 286 | 0.003497 | 0.4603\% | 0.2288\% | 1.3 | 0.7 | 76\% | 153\% |
| 59 | 0 | 377 | 0.000000 | 0.5047\% | 0.2556\% | 1.9 | 1.0 | 0\% | 0\% |
| 60 | 4 | 462 | 0.008658 | 0.5489\% | 0.2861\% | 2.5 | 1.3 | 158\% | 303\% |
| 61 | 4 | 564 | 0.007092 | 0.6045\% | 0.3205\% | 3.4 | 1.8 | 117\% | 221\% |
| 62 | 9 | 716 | 0.012570 | 0.6495\% | 0.3592\% | 4.7 | 2.6 | 194\% | 350\% |
| 63 | 6 | 1,117 | 0.005372 | 0.6923\% | 0.4025\% | 7.7 | 4.5 | 78\% | 133\% |
| 64 | 12 | 1,322 | 0.009077 | 0.7370\% | 0.4510\% | 9.7 | 6.0 | 123\% | 201\% |
| 65 | 9 | 1,438 | 0.006259 | 0.7833\% | 0.5054\% | 11.3 | 7.3 | 80\% | 124\% |
| 66 | 6 | 1,508 | 0.003979 | 0.8689\% | 0.5663\% | 13.1 | 8.5 | 46\% | 70\% |
| 67 | 11 | 1,666 | 0.006603 | 0.9669\% | 0.6345\% | 16.1 | 10.6 | 68\% | 104\% |
| 68 | 19 | 1,704 | 0.011150 | 1.0742\% | 0.7110\% | 18.3 | 12.1 | 104\% | 157\% |
| 69 | 12 | 1,673 | 0.007173 | 1.1644\% | 0.7967\% | 19.5 | 13.3 | 62\% | 90\% |
| 70 | 12 | 1,652 | 0.007264 | 1.2549\% | 0.8928\% | 20.7 | 14.7 | 58\% | 81\% |
| 71 | 16 | 1,572 | 0.010178 | 1.3962\% | 1.0004\% | 21.9 | 15.7 | 73\% | 102\% |
| 72 | 29 | 1,554 | 0.018662 | 1.5477\% | 1.1210\% | 24.1 | 17.4 | 121\% | 166\% |
| 73 | 16 | 1,535 | 0.010423 | 1.6855\% | 1.2561\% | 25.9 | 19.3 | 62\% | 83\% |
| 74 | 16 | 1,461 | 0.010951 | 1.8357\% | 1.4075\% | 26.8 | 20.6 | 60\% | 78\% |
| 75 | 17 | 1,415 | 0.012014 | 1.9700\% | 1.5772\% | 27.9 | 22.3 | 61\% | 76\% |
| 76 | 28 | 1,335 | 0.020974 | 2.2250\% | 1.7673\% | 29.7 | 23.6 | 94\% | 119\% |
| 77 | 23 | 1,278 | 0.017997 | 2.5000\% | 1.9803\% | 32.0 | 25.3 | 72\% | 91\% |
| 78 | 33 | 1,294 | 0.025502 | 2.7571\% | 2.2190\% | 35.7 | 28.7 | 92\% | 115\% |
| 79 | 30 | 1,307 | 0.022953 | 3.0142\% | 2.4865\% | 39.4 | 32.5 | 76\% | 92\% |
| 80 | 28 | 1,315 | 0.021293 | 3.2713\% | 2.7862\% | 43.0 | 36.6 | 65\% | 76\% |
| 81 | 32 | 1,295 | 0.024710 | 3.6881\% | 3.1221\% | 47.8 | 40.4 | 67\% | 79\% |
| 82 | 45 | 1,266 | 0.035545 | 4.1148\% | 3.4984\% | 52.1 | 44.3 | 86\% | 102\% |
| 83 | 31 | 1,230 | 0.025203 | 4.5511\% | 3.9201\% | 56.0 | 48.2 | 55\% | 64\% |
| 84 | 49 | 1,206 | 0.040630 | 4.9974\% | 4.3926\% | 60.3 | 53.0 | 81\% | 92\% |
| 85 | 42 | 1,094 | 0.038391 | 5.4976\% | 4.9221\% | 60.1 | 53.8 | 70\% | 78\% |
| 86 | 37 | 989 | 0.037412 | 6.3201\% | 5.5154\% | 62.5 | 54.5 | 59\% | 68\% |
| 87 | 42 | 894 | 0.046980 | 7.1554\% | 6.1802\% | 64.0 | 55.3 | 66\% | 76\% |
| 88 | 44 | 769 | 0.057217 | 7.9398\% | 6.9252\% | 61.1 | 53.3 | 72\% | 83\% |
| 89 | 41 | 670 | 0.061194 | 8.7945\% | 7.7599\% | 58.9 | 52.0 | 70\% | 79\% |
| 90 | 55 | 582 | 0.094502 | 9.5852\% | 8.6953\% | 55.8 | 50.6 | 99\% | 109\% |
| 91 | 35 | 461 | 0.075922 | 11.0304\% | 9.7435\% | 50.9 | 44.9 | 69\% | 78\% |
| 92 | 21 | 368 | 0.057065 | 12.4890\% | 10.9179\% | 46.0 | 40.2 | 46\% | 52\% |
| 93 | 30 | 284 | 0.105634 | 14.1041\% | 12.2340\% | 40.1 | 34.7 | 75\% | 86\% |
| 94 | 20 | 209 | 0.095694 | 15.6113\% | 13.7087\% | 32.6 | 28.7 | 61\% | 70\% |
| 95 | 17 | 161 | 0.105590 | 17.1565\% | 15.3611\% | 27.6 | 24.7 | 62\% | 69\% |
| 96 | 18 | 110 | 0.163636 | 19.0191\% | 17.2127\% | 20.9 | 18.9 | 86\% | 95\% |
| 97 | 6 | 64 | 0.093750 | 20.8662\% | 19.2875\% | 13.4 | 12.3 | 45\% | 49\% |
| 98 | 6 | 48 | 0.125000 | 22.1931\% | 21.6125\% | 10.7 | 10.4 | 56\% | 58\% |
| 99 | 4 | 20 | 0.200000 | 23.1032\% | 24.2176\% | 4.6 | 4.8 | 87\% | 83\% |
| Subtotal | 917 | 40,547 |  |  |  | 1,262.8 | 1,052.1 | 73\% | 87\% |
| 100 or more | 7 | 37 | 0.189189 | 25.4498\% | 34.0732\% | 9.4 | 12.6 | 74\% | 56\% |
| Total | 924 | 40,584 |  |  |  | 1,272.2 | 1,064.7 | 73\% | 87\% |

## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

|  | TABLE 1A GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected $(7) /(3)$ | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 45-49 | 0 | 1 | 0.000000 | 0.4881\% | 0.1509\% | 0.0 | 0.0 | 0\% | 0\% |
| 50-54 | 0 | 19 | 0.000000 | 0.6896\% | 0.2166\% | 0.1 | 0.0 | 0\% | 0\% |
| 55-59 | 1 | 268 | 0.003731 | 0.9151\% | 0.3632\% | 2.5 | 1.0 | 41\% | 103\% |
| 60-64 | 15 | 1,113 | 0.013477 | 1.1809\% | 0.5840\% | 13.1 | 6.5 | 114\% | 231\% |
| 65-69 | 26 | 1,879 | 0.013837 | 1.6710\% | 0.9756\% | 31.4 | 18.3 | 83\% | 142\% |
| 70-74 | 30 | 1,920 | 0.015625 | 2.3795\% | 1.6598\% | 45.7 | 31.9 | 66\% | 94\% |
| 75-79 | 56 | 1,759 | 0.031836 | 3.6777\% | 2.8241\% | 64.7 | 49.7 | 87\% | 113\% |
| 80-84 | 79 | 1,508 | 0.052387 | 6.2071\% | 4.8218\% | 93.6 | 72.7 | 84\% | 109\% |
| 85-89 | 61 | 869 | 0.070196 | 9.8251\% | 8.2032\% | 85.4 | 71.3 | 71\% | 86\% |
| 90-94 | 25 | 282 | 0.088652 | 15.7318\% | 13.7716\% | 44.4 | 38.8 | 56\% | 64\% |
| 95-99 | 12 | 67 | 0.179104 | 25.1914\% | 22.5265\% | 16.9 | 15.1 | 71\% | 80\% |
| 100+ | 0 | 5 | 0.000000 | 37.1685\% | 42.3198\% | 1.9 | 2.1 | 0\% | 0\% |
| Total | 305 | 9,690 |  |  |  | 399.6 | 307.4 | 76\% | 99\% |

## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM MORTALITY EXPERIENCE OF SERVICE RETIREES WOMEN

|  | TABLE 1B GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected $(7) /(3)$ | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 45-49 | 0 | 1 | 0.000000 | 0.1706\% | 0.1096\% | 0.0 | 0.0 | 0\% | 0\% |
| 50-54 | 1 | 2 | 0.500000 | 0.1922\% | 0.1152\% | 0.0 | 0.0 | 26015\% | 43403\% |
| 55-59 | 1 | 936 | 0.001068 | 0.4598\% | 0.2303\% | 4.3 | 2.2 | 23\% | 46\% |
| 60-64 | 35 | 4,181 | 0.008371 | 0.6714\% | 0.3865\% | 28.1 | 16.2 | 125\% | 217\% |
| 65-69 | 57 | 7,989 | 0.007135 | 0.9796\% | 0.6487\% | 78.3 | 51.8 | 73\% | 110\% |
| 70-74 | 89 | 7,774 | 0.011448 | 1.5362\% | 1.1286\% | 119.4 | 87.7 | 75\% | 101\% |
| 75-79 | 131 | 6,629 | 0.019762 | 2.4831\% | 1.9977\% | 164.6 | 132.4 | 80\% | 99\% |
| 80-84 | 185 | 6,312 | 0.029309 | 4.1052\% | 3.5258\% | 259.1 | 222.6 | 71\% | 83\% |
| 85-89 | 206 | 4,416 | 0.046649 | 6.9429\% | 6.0890\% | 306.6 | 268.9 | 67\% | 77\% |
| 90-94 | 161 | 1,904 | 0.084559 | 11.8319\% | 10.4568\% | 225.3 | 199.1 | 71\% | 81\% |
| 95-99 | 51 | 403 | 0.126551 | 19.1490\% | 17.6742\% | 77.2 | 71.2 | 66\% | 72\% |
| 100+ | 7 | 37 | 0.189189 | 25.4498\% | 34.0732\% | 9.4 | 12.6 | 74\% | 56\% |
| Total | 924 | 40,584 |  |  |  | 1,272.2 | 1,064.7 | 73\% | 87\% |

## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

|  | TABLE 1A |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 0 | N/A | 0.1675\% | 0.0919\% | 0 | 0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.2183\% | 0.1007\% | 0 | 0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.2686\% | 0.1099\% | 0 | 0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.3183\% | 0.1195\% | 0 | 0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.3676\% | 0.1295\% | 0 | 0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.4164\% | 0.1399\% | 0 | 0 | 0\% | 0\% |
| 47 | 0 | 1 | 0.000000 | 0.4647\% | 0.1506\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 2 | 0.000000 | 0.5123\% | 0.1616\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 1 | 0.000000 | 0.5596\% | 0.1730\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 2 | 0.000000 | 0.6063\% | 0.1851\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 4 | 0.000000 | 0.6573\% | 0.1981\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 9 | 0.000000 | 0.7050\% | 0.2127\% | 0.1 | 0.0 | 0\% | 0\% |
| 53 | 0 | 15 | 0.000000 | 0.7534\% | 0.2292\% | 0.1 | 0.0 | 0\% | 0\% |
| 54 | 0 | 19 | 0.000000 | 0.7991\% | 0.2483\% | 0.2 | 0.0 | 0\% | 0\% |
| 55 | 0 | 46 | 0.000000 | 0.8464\% | 0.2708\% | 0.4 | 0.1 | 0\% | 0\% |
| 56 | 1 | 125 | 0.008000 | 0.8883\% | 0.2973\% | 1.1 | 0.4 | 90\% | 269\% |
| 57 | 0 | 180 | 0.000000 | 0.9281\% | 0.3284\% | 1.7 | 0.6 | 0\% | 0\% |
| 58 | 4 | 265 | 0.015094 | 0.9655\% | 0.3650\% | 2.6 | 1.0 | 156\% | 414\% |
| 59 | 2 | 316 | 0.006329 | 0.9957\% | 0.4076\% | 3.1 | 1.3 | 64\% | 155\% |
| 60 | 5 | 375 | 0.013333 | 1.0234\% | 0.4569\% | 3.8 | 1.7 | 130\% | 292\% |
| 61 | 9 | 426 | 0.021127 | 1.1201\% | 0.5132\% | 4.8 | 2.2 | 189\% | 412\% |
| 62 | 7 | 537 | 0.013035 | 1.2056\% | 0.5766\% | 6.5 | 3.1 | 108\% | 226\% |
| 63 | 8 | 686 | 0.011662 | 1.2915\% | 0.6475\% | 8.9 | 4.4 | 90\% | 180\% |
| 64 | 6 | 761 | 0.007884 | 1.3656\% | 0.7265\% | 10.4 | 5.5 | 58\% | 109\% |
| 65 | 14 | 810 | 0.017284 | 1.4332\% | 0.8143\% | 11.6 | 6.6 | 121\% | 212\% |
| 66 | 12 | 863 | 0.013905 | 1.5819\% | 0.9117\% | 13.7 | 7.9 | 88\% | 153\% |
| 67 | 12 | 926 | 0.012959 | 1.7268\% | 1.0202\% | 16.0 | 9.4 | 75\% | 127\% |
| 68 | 19 | 984 | 0.019309 | 1.8654\% | 1.1405\% | 18.4 | 11.2 | 104\% | 169\% |
| 69 | 15 | 961 | 0.015609 | 2.0163\% | 1.2745\% | 19.4 | 12.2 | 77\% | 122\% |
| 70 | 12 | 949 | 0.012645 | 2.1595\% | 1.4236\% | 20.5 | 13.5 | 59\% | 89\% |
| 71 | 25 | 960 | 0.026042 | 2.3237\% | 1.5897\% | 22.3 | 15.3 | 112\% | 164\% |
| 72 | 19 | 956 | 0.019874 | 2.4882\% | 1.7746\% | 23.8 | 17.0 | 80\% | 112\% |
| 73 | 16 | 961 | 0.016649 | 2.6524\% | 1.9804\% | 25.5 | 19.0 | 63\% | 84\% |
| 74 | 25 | 958 | 0.026096 | 2.8167\% | 2.2092\% | 27.0 | 21.2 | 93\% | 118\% |
| 75 | 26 | 957 | 0.027168 | 2.9963\% | 2.4631\% | 28.7 | 23.6 | 91\% | 110\% |
| 76 | 28 | 924 | 0.030303 | 3.4139\% | 2.7456\% | 31.5 | 25.4 | 89\% | 110\% |
| 77 | 32 | 891 | 0.035915 | 3.8512\% | 3.0589\% | 34.3 | 27.3 | 93\% | 117\% |
| 78 | 17 | 833 | 0.020408 | 4.2927\% | 3.4063\% | 35.8 | 28.4 | 48\% | 60\% |
| 79 | 32 | 805 | 0.039752 | 4.7385\% | 3.7924\% | 38.1 | 30.5 | 84\% | 105\% |
| 80 | 24 | 778 | 0.030848 | 5.1887\% | 4.2217\% | 40.4 | 32.8 | 59\% | 73\% |
| 81 | 34 | 751 | 0.045273 | 5.8109\% | 4.6987\% | 43.6 | 35.3 | 78\% | 96\% |
| 82 | 40 | 691 | 0.057887 | 6.4531\% | 5.2291\% | 44.6 | 36.1 | 90\% | 111\% |
| 83 | 41 | 636 | 0.064465 | 7.0797\% | 5.8194\% | 45.0 | 37.0 | 91\% | 111\% |
| 84 | 36 | 550 | 0.065455 | 7.7594\% | 6.4762\% | 42.7 | 35.6 | 84\% | 101\% |
| 85 | 38 | 480 | 0.079167 | 8.4173\% | 7.2073\% | 40.4 | 34.6 | 94\% | 110\% |
| 86 | 26 | 408 | 0.063725 | 9.2937\% | 8.0200\% | 37.9 | 32.7 | 69\% | 79\% |
| 87 | 31 | 359 | 0.086351 | 10.2214\% | 8.9234\% | 36.7 | 32.0 | 84\% | 97\% |
| 88 | 32 | 308 | 0.103896 | 11.1581\% | 9.9257\% | 34.4 | 30.6 | 93\% | 105\% |
| 89 | 27 | 235 | 0.114894 | 12.0435\% | 11.0371\% | 28.3 | 25.9 | 95\% | 104\% |
| 90 | 14 | 183 | 0.076503 | 12.9940\% | 12.2692\% | 23.8 | 22.5 | 59\% | 62\% |
| 91 | 16 | 153 | 0.104575 | 14.8174\% | 13.6347\% | 22.7 | 20.9 | 71\% | 77\% |
| 92 | 15 | 121 | 0.123967 | 16.7666\% | 15.1445\% | 20.3 | 18.3 | 74\% | 82\% |
| 93 | 16 | 92 | 0.173913 | 18.6813\% | 16.8096\% | 17.2 | 15.5 | 93\% | 103\% |
| 94 | 11 | 67 | 0.164179 | 20.6738\% | 18.6635\% | 13.9 | 12.5 | 79\% | 88\% |
| 95 | 7 | 54 | 0.129630 | 22.9049\% | 20.7325\% | 12.4 | 11.2 | 57\% | 63\% |
| 96 | 6 | 40 | 0.150000 | 25.0475\% | 23.0497\% | 10.0 | 9.2 | 60\% | 65\% |
| 97 | 3 | 24 | 0.125000 | 27.2286\% | 25.6259\% | 6.5 | 6.2 | 46\% | 49\% |
| 98 | 6 | 14 | 0.428571 | 29.6838\% | 28.4901\% | 4.2 | 4.0 | 144\% | 150\% |
| 99 | 3 | 7 | 0.428571 | 31.9265\% | 31.6777\% | 2.2 | 2.2 | 134\% | 135\% |
| Subtotal | 772 | 23,459 |  |  |  | 937.2 | 744.0 | 82\% | 104\% |
| 100 or more | 1 | 6 | 0.166667 | 37.1685\% | 43.7433\% | 2.2 | 2.6 | 45\% | 38\% |
| Total | 773 | 23,465 |  |  |  | 939.4 | 746.6 | 82\% | 104\% |

## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM MORTALITY EXPERIENCE OF SERVICE RETIREES WOMEN

| Age | TABLE 1B |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 0 | N/A | 0.0683\% | 0.0751\% | 0 | 0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.0758\% | 0.0803\% | 0 | 0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.0851\% | 0.0853\% | 0 | 0 | 0\% | 0\% |
| 44 | 0 | 1 | 0.000000 | 0.0964\% | 0.0901\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.1094\% | 0.0947\% | 0 | 0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.1245\% | 0.0991\% | 0 | 0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.1411\% | 0.1032\% | 0 | 0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.1599\% | 0.1071\% | 0 | 0 | 0\% | 0\% |
| 49 | 0 | 1 | 0.000000 | 0.1801\% | 0.1110\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 1 | 2 | 0.500000 | 0.2023\% | 0.1160\% | 0.0 | 0.0 | 24716\% | 43100\% |
| 51 | 1 | 1 | 1.000000 | 0.2247\% | 0.1226\% | 0.0 | 0.0 | 44504\% | 81589\% |
| 52 | 0 | 7 | 0.000000 | 0.2494\% | 0.1311\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 16 | 0.000000 | 0.2755\% | 0.1417\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 0 | 32 | 0.000000 | 0.3030\% | 0.1549\% | 0.1 | 0.0 | 0\% | 0\% |
| 55 | 1 | 116 | 0.008621 | 0.3319\% | 0.1710\% | 0.4 | 0.2 | 260\% | 504\% |
| 56 | 0 | 327 | 0.000000 | 0.3771\% | 0.1902\% | 1.2 | 0.6 | 0\% | 0\% |
| 57 | 1 | 544 | 0.001838 | 0.4227\% | 0.2128\% | 2.3 | 1.2 | 43\% | 86\% |
| 58 | 4 | 776 | 0.005155 | 0.4673\% | 0.2392\% | 3.6 | 1.9 | 110\% | 215\% |
| 59 | 2 | 949 | 0.002107 | 0.5124\% | 0.2695\% | 4.9 | 2.6 | 41\% | 78\% |
| 60 | 13 | 1,130 | 0.011504 | 0.5572\% | 0.3038\% | 6.3 | 3.4 | 206\% | 379\% |
| 61 | 8 | 1,320 | 0.006061 | 0.6137\% | 0.3425\% | 8.1 | 4.5 | 99\% | 177\% |
| 62 | 14 | 1,720 | 0.008140 | 0.6593\% | 0.3855\% | 11.3 | 6.6 | 123\% | 211\% |
| 63 | 15 | 2,552 | 0.005878 | 0.7028\% | 0.4334\% | 17.9 | 11.1 | 84\% | 136\% |
| 64 | 21 | 2,960 | 0.007095 | 0.7482\% | 0.4865\% | 22.1 | 14.4 | 95\% | 146\% |
| 65 | 30 | 3,174 | 0.009452 | 0.7952\% | 0.5456\% | 25.2 | 17.3 | 119\% | 173\% |
| 66 | 18 | 3,457 | 0.005207 | 0.8821\% | 0.6115\% | 30.5 | 21.1 | 59\% | 85\% |
| 67 | 30 | 3,684 | 0.008143 | 0.9815\% | 0.6850\% | 36.2 | 25.2 | 83\% | 119\% |
| 68 | 44 | 3,725 | 0.011812 | 1.0904\% | 0.7670\% | 40.6 | 28.6 | 108\% | 154\% |
| 69 | 36 | 3,698 | 0.009735 | 1.1820\% | 0.8587\% | 43.7 | 31.8 | 82\% | 113\% |
| 70 | 31 | 3,664 | 0.008461 | 1.2739\% | 0.9612\% | 46.7 | 35.2 | 66\% | 88\% |
| 71 | 51 | 3,640 | 0.014011 | 1.4216\% | 1.0760\% | 51.7 | 39.2 | 99\% | 130\% |
| 72 | 73 | 3,606 | 0.020244 | 1.5759\% | 1.2044\% | 56.8 | 43.4 | 128\% | 168\% |
| 73 | 49 | 3,590 | 0.013649 | 1.7214\% | 1.3482\% | 61.8 | 48.4 | 79\% | 101\% |
| 74 | 57 | 3,543 | 0.016088 | 1.8748\% | 1.5088\% | 66.4 | 53.5 | 86\% | 107\% |
| 75 | 63 | 3,533 | 0.017832 | 2.0181\% | 1.6889\% | 71.3 | 59.7 | 88\% | 106\% |
| 76 | 74 | 3,484 | 0.021240 | 2.2793\% | 1.8910\% | 79.4 | 65.9 | 93\% | 112\% |
| 77 | 85 | 3,425 | 0.024818 | 2.5532\% | 2.1178\% | 87.4 | 72.5 | 97\% | 117\% |
| 78 | 83 | 3,425 | 0.024234 | 2.8158\% | 2.3724\% | 96.4 | 81.3 | 86\% | 102\% |
| 79 | 83 | 3,367 | 0.024651 | 3.0784\% | 2.6592\% | 103.6 | 89.5 | 80\% | 93\% |
| 80 | 97 | 3,307 | 0.029332 | 3.3410\% | 2.9809\% | 110.5 | 98.6 | 88\% | 98\% |
| 81 | 92 | 3,181 | 0.028922 | 3.7666\% | 3.3430\% | 119.8 | 106.3 | 77\% | 87\% |
| 82 | 103 | 3,033 | 0.033960 | 4.2025\% | 3.7490\% | 127.5 | 113.7 | 81\% | 91\% |
| 83 | 108 | 2,837 | 0.038068 | 4.6480\% | 4.2057\% | 131.9 | 119.3 | 82\% | 91\% |
| 84 | 126 | 2,607 | 0.048331 | 5.1039\% | 4.7170\% | 133.1 | 123.0 | 95\% | 102\% |
| 85 | 118 | 2,339 | 0.050449 | 5.5978\% | 5.2899\% | 130.9 | 123.7 | 90\% | 95\% |
| 86 | 85 | 2,059 | 0.041282 | 6.4159\% | 5.9299\% | 132.1 | 122.1 | 64\% | 70\% |
| 87 | 97 | 1,812 | 0.053532 | 7.2419\% | 6.6427\% | 131.2 | 120.4 | 74\% | 81\% |
| 88 | 106 | 1,536 | 0.069010 | 8.0358\% | 7.4373\% | 123.4 | 114.2 | 86\% | 93\% |
| 89 | 95 | 1,307 | 0.072686 | 8.8741\% | 8.3244\% | 116.0 | 108.8 | 82\% | 87\% |
| 90 | 93 | 1,075 | 0.086512 | 9.6720\% | 9.3126\% | 104.0 | 100.1 | 89\% | 93\% |
| 91 | 77 | 835 | 0.092216 | 11.1303\% | 10.4127\% | 92.9 | 86.9 | 83\% | 89\% |
| 92 | 44 | 643 | 0.068429 | 12.6021\% | 11.6357\% | 81.0 | 74.8 | 54\% | 59\% |
| 93 | 58 | 495 | 0.117172 | 14.1891\% | 12.9957\% | 70.2 | 64.3 | 83\% | 90\% |
| 94 | 36 | 352 | 0.102273 | 15.7053\% | 14.5118\% | 55.3 | 51.1 | 65\% | 70\% |
| 95 | 34 | 246 | 0.138211 | 17.2598\% | 16.2049\% | 42.5 | 39.9 | 80\% | 85\% |
| 96 | 22 | 164 | 0.134146 | 19.1337\% | 18.1084\% | 31.4 | 29.7 | 70\% | 74\% |
| 97 | 19 | 114 | 0.166667 | 20.9290\% | 20.2314\% | 23.9 | 23.1 | 80\% | 82\% |
| 98 | 12 | 77 | 0.155844 | 22.2598\% | 22.6081\% | 17.1 | 17.4 | 70\% | 69\% |
| 99 | 11 | 41 | 0.268293 | 23.1727\% | 25.2614\% | 9.5 | 10.4 | 116\% | 106\% |
| Subtotal | 2,321 | 93,529 |  |  |  | 2,760.5 | 2,406.9 | 84\% | 96\% |
| 100 or more | 13 | 59 | 0.220339 | 25.4498\% | 35.4410\% | 15.0 | 20.9 | 87\% | 62\% |
| Total | 2,334 | 93,588 |  |  |  | 2,775.5 | 2,427.8 | 84\% | 96\% |

## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

|  | TABLE 1A GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \begin{array}{l} \text { (2) } /(3) \end{array} \\ & \hline \end{aligned}$ | Expected $(7) /(3)$ | Proposed (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 45-49 | 0 | 4 | 0.000000 | 0.5122\% | 0.1617\% | 0.0 | 0.0 | 0\% | 0\% |
| 50-54 | 0 | 49 | 0.000000 | 0.7484\% | 0.2292\% | 0.4 | 0.1 | 0\% | 0\% |
| 55-59 | 7 | 932 | 0.007511 | 0.9523\% | 0.3586\% | 8.9 | 3.3 | 79\% | 209\% |
| 60-64 | 35 | 2,785 | 0.012567 | 1.2329\% | 0.6092\% | 34.3 | 17.0 | 102\% | 206\% |
| 65-69 | 72 | 4,544 | 0.015845 | 1.7382\% | 1.0427\% | 79.0 | 47.4 | 91\% | 152\% |
| 70-74 | 97 | 4,784 | 0.020276 | 2.4888\% | 1.7962\% | 119.1 | 85.9 | 81\% | 113\% |
| 75-79 | 135 | 4,410 | 0.030612 | 3.8194\% | 3.0635\% | 168.4 | 135.1 | 80\% | 100\% |
| 80-84 | 175 | 3,406 | 0.051380 | 6.3506\% | 5.1937\% | 216.3 | 176.9 | 81\% | 99\% |
| 85-89 | 154 | 1,790 | 0.086034 | 9.9266\% | 8.7072\% | 177.7 | 155.9 | 87\% | 99\% |
| 90-94 | 72 | 616 | 0.116883 | 15.8726\% | 14.5467\% | 97.8 | 89.6 | 74\% | 80\% |
| 95-99 | 25 | 139 | 0.179856 | 25.4051\% | 23.5768\% | 35.3 | 32.8 | 71\% | 76\% |
| 100+ | 1 | 6 | 0.166667 | 37.1685\% | 43.7433\% | 2.2 | 2.6 | 45\% | 38\% |
| Total | 773 | 23,465 |  |  |  | 939.4 | 746.6 | 82\% | 104\% |

## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM MORTALITY EXPERIENCE OF SERVICE RETIREES WOMEN

|  | TABLE 1B GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected $(7) /(\mathbf{3})$ | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 1 | 0.000000 | 0.0964\% | 0.0901\% | 0.0 | 0.0 | 0\% | 0\% |
| 45-49 | 0 | 1 | 0.000000 | 0.1801\% | 0.1110\% | 0.0 | 0.0 | 0\% | 0\% |
| 50-54 | 2 | 58 | 0.034483 | 0.2841\% | 0.1465\% | 0.2 | 0.1 | 1214\% | 2354\% |
| 55-59 | 8 | 2,712 | 0.002950 | 0.4575\% | 0.2357\% | 12.4 | 6.4 | 64\% | 125\% |
| 60-64 | 71 | 9,682 | 0.007333 | 0.6798\% | 0.4136\% | 65.8 | 40.0 | 108\% | 177\% |
| 65-69 | 158 | 17,738 | 0.008907 | 0.9935\% | 0.6992\% | 176.2 | 124.0 | 90\% | 127\% |
| 70-74 | 261 | 18,043 | 0.014465 | 1.5711\% | 1.2175\% | 283.5 | 219.7 | 92\% | 119\% |
| 75-79 | 388 | 17,234 | 0.022514 | 2.5429\% | 2.1404\% | 438.2 | 368.9 | 89\% | 105\% |
| 80-84 | 526 | 14,965 | 0.035149 | 4.1610\% | 3.7482\% | 622.7 | 560.9 | 84\% | 94\% |
| 85-89 | 501 | 9,053 | 0.055341 | 6.9996\% | 6.5087\% | 633.7 | 589.2 | 79\% | 85\% |
| 90-94 | 308 | 3,400 | 0.090588 | 11.8665\% | 11.0966\% | 403.5 | 377.3 | 76\% | 82\% |
| 95-99 | 98 | 642 | 0.152648 | 19.3673\% | 18.7525\% | 124.3 | 120.4 | 79\% | 81\% |
| 100+ | 13 | 59 | 0.220339 | 25.4498\% | 35.4410\% | 15.0 | 20.9 | 87\% | 62\% |
| Total | 2,334 | 93,588 |  |  |  | 2,775.5 | 2,427.8 | 84\% | 96\% |

## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM MORTALITY EXPERIENCE OF SERVICE RETIREES MEN AND WOMEN

| Plan <br> Year <br> Ending <br> June 30, | TABLE 1C <br> Life Years Exposed | Actual <br> Deaths | Expected Deaths | 10-YEAR PERIOD ENDING 6/30/2013 $\qquad$ <br> Mortality Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / <br> Expected | $\begin{aligned} & \hline \text { Actual } \\ & \text { (3) } /(2) \\ & \hline \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 10,303 | 350 | 261.0 | 134\% | 3.3971\% | 2.5330\% |
| 2005 | 10,684 | 361 | 278.0 | 130\% | 3.3789\% | 2.6023\% |
| 2006 | 11,037 | 266 | 294.7 | 90\% | 2.4101\% | 2.6705\% |
| 2007 | 11,243 | 324 | 310.1 | 104\% | 2.8818\% | 2.7580\% |
| 2008 | 11,628 | 275 | 323.9 | 85\% | 2.3650\% | 2.7858\% |
| 2009 | 11,885 | 302 | 342.7 | 88\% | 2.5410\% | 2.8835\% |
| 2010 | 12,073 | 278 | 358.8 | 77\% | 2.3027\% | 2.9717\% |
| 2011 | 12,343 | 354 | 376.1 | 94\% | 2.8680\% | 3.0468\% |
| 2012 | 12,749 | 348 | 398.2 | 87\% | 2.7296\% | 3.1236\% |
| 2013 | 13,109 | 249 | 413.7 | 60\% | 1.8995\% | 3.1557\% |
| Total | 117,054 | 3,107 | 3,357.2 | 93\% | 2.6543\% | 2.8681\% |

[^18]|  | TABLE 2A |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 0 | N/A | 1.5541\% | 1.6674\% | 0 | 0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 1.5842\% | 1.7475\% | 0 | 0 | 0\% | 0\% |
| 43 | 0 | 2 | 0.000000 | 1.6151\% | 1.8275\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 4 | 0.000000 | 1.6468\% | 1.9075\% | 0.1 | 0.1 | 0\% | 0\% |
| 45 | 0 | 4 | 0.000000 | 1.6793\% | 1.9875\% | 0.1 | 0.1 | 0\% | 0\% |
| 46 | 0 | 6 | 0.000000 | 1.7126\% | 2.0675\% | 0.1 | 0.1 | 0\% | 0\% |
| 47 | 0 | 9 | 0.000000 | 1.7468\% | 2.1476\% | 0.2 | 0.2 | 0\% | 0\% |
| 48 | 0 | 12 | 0.000000 | 1.7819\% | 2.1884\% | 0.2 | 0.3 | 0\% | 0\% |
| 49 | 1 | 16 | 0.062500 | 1.8178\% | 2.2292\% | 0.3 | 0.4 | 344\% | 280\% |
| 50 | 0 | 23 | 0.000000 | 1.8547\% | 2.2700\% | 0.4 | 0.5 | 0\% | 0\% |
| 51 | 0 | 19 | 0.000000 | 1.8925\% | 2.3108\% | 0.4 | 0.4 | 0\% | 0\% |
| 52 | 1 | 25 | 0.040000 | 1.9313\% | 2.3516\% | 0.5 | 0.6 | 207\% | 170\% |
| 53 | 1 | 27 | 0.037037 | 1.9451\% | 2.3536\% | 0.5 | 0.6 | 190\% | 157\% |
| 54 | 0 | 34 | 0.000000 | 1.9591\% | 2.3556\% | 0.7 | 0.8 | 0\% | 0\% |
| 55 | 0 | 31 | 0.000000 | 1.9474\% | 2.3576\% | 0.6 | 0.7 | 0\% | 0\% |
| 56 | 3 | 30 | 0.100000 | 2.0028\% | 2.3595\% | 0.6 | 0.7 | 499\% | 424\% |
| 57 | 0 | 29 | 0.000000 | 2.0860\% | 2.3615\% | 0.6 | 0.7 | 0\% | 0\% |
| 58 | 0 | 30 | 0.000000 | 2.1722\% | 2.3615\% | 0.7 | 0.7 | 0\% | 0\% |
| 59 | 1 | 39 | 0.025641 | 2.2433\% | 2.3615\% | 0.9 | 0.9 | 114\% | 109\% |
| 60 | 0 | 41 | 0.000000 | 2.3164\% | 2.3615\% | 0.9 | 1.0 | 0\% | 0\% |
| 61 | 0 | 47 | 0.000000 | 2.4116\% | 2.3615\% | 1.1 | 1.1 | 0\% | 0\% |
| 62 |  | 41 | 0.024390 | 2.4907\% | 2.2875\% | 1.0 | 0.9 | 98\% | 107\% |
| 63 | 2 | 34 | 0.058824 | 2.5941\% | 2.2998\% | 0.9 | 0.8 | 227\% | 256\% |
| 64 | 3 | 37 | 0.081081 | 2.6815\% | 2.3120\% | 1.0 | 0.9 | 302\% | 351\% |
| 65 | , | 32 | 0.031250 | 2.7743\% | 2.3242\% | 0.9 | 0.7 | 113\% | 134\% |
| 66 | 0 | 35 | 0.000000 | 2.8973\% | 2.3365\% | 1.0 | 0.8 | 0\% | 0\% |
| 67 | 1 | 32 | 0.031250 | 3.0060\% | 2.3487\% | 1.0 | 0.8 | 104\% | 133\% |
| 68 | 1 | 30 | 0.033333 | 3.0986\% | 2.4534\% | 0.9 | 0.7 | 108\% | 136\% |
| 69 | 1 | 24 | 0.041667 | 3.2255\% | 2.5582\% | 0.8 | 0.6 | 129\% | 163\% |
| 70 | 2 | 26 | 0.076923 | 3.3363\% | 2.6630\% | 0.9 | 0.7 | 231\% | 289\% |
| 71 | 0 | 22 | 0.000000 | 3.4857\% | 2.7677\% | 0.8 | 0.6 | 0\% | 0\% |
| 72 | 0 | 21 | 0.000000 | 3.6488\% | 2.8725\% | 0.8 | 0.6 | 0\% | 0\% |
| 73 | 0 | 19 | 0.000000 | 3.8263\% | 3.1570\% | 0.7 | 0.6 | 0\% | 0\% |
| 74 | 1 | 21 | 0.047619 | 4.0190\% | 3.4415\% | 0.8 | 0.7 | 118\% | 138\% |
| 75 | 0 | 21 | 0.000000 | 4.2616\% | 3.7260\% | 0.9 | 0.8 | 0\% | 0\% |
| 76 | 1 | 16 | 0.062500 | 4.5082\% | 4.0105\% | 0.7 | 0.6 | 139\% | 156\% |
| 77 | 3 | 13 | 0.230769 | 4.8123\% | 4.2950\% | 0.6 | 0.6 | 480\% | 537\% |
| 78 | 1 | 8 | 0.125000 | 5.1404\% | 4.8682\% | 0.4 | 0.4 | 243\% | 257\% |
| 79 | 0 | 8 | 0.000000 | 5.4936\% | 5.4414\% | 0.4 | 0.4 | 0\% | 0\% |
| 80 | 2 | 9 | 0.222222 | 5.8730\% | 6.0146\% | 0.5 | 0.5 | 378\% | 369\% |
| 81 | 1 | 10 | 0.100000 | 6.2793\% | 6.5878\% | 0.6 | 0.7 | 159\% | 152\% |
| 82 | 1 | 10 | 0.100000 | 6.7133\% | 7.1610\% | 0.7 | 0.7 | 149\% | 140\% |
| 83 | 0 | 12 | 0.000000 | 7.1208\% | 8.1535\% | 0.9 | 1.0 | 0\% | 0\% |
| 84 | 2 | 14 | 0.142857 | 7.6162\% | 9.1460\% | 1.1 | 1.3 | 188\% | 156\% |
| 85 | 0 | 10 | 0.000000 | 8.2604\% | 10.1385\% | 0.8 | 1.0 | 0\% | 0\% |
| 86 | 0 | 6 | 0.000000 | 9.1187\% | 11.1311\% | 0.5 | 0.7 | 0\% | 0\% |
| 87 | 0 | 4 | 0.000000 | 10.0573\% | 12.1236\% | 0.4 | 0.5 | 0\% | 0\% |
| 88 | 1 | 3 | 0.333333 | 11.0104\% | 13.6878\% | 0.3 | 0.4 | 303\% | 244\% |
| 89 | 0 | 3 | 0.000000 | 11.8827\% | 15.2521\% | 0.4 | 0.5 | 0\% | 0\% |
| 90 | 0 | 3 | 0.000000 | 12.8577\% | 16.8163\% | 0.4 | 0.5 | 0\% | 0\% |
| 91 | 1 | 2 | 0.500000 | 14.6595\% | 18.3805\% | 0.3 | 0.4 | 341\% | 272\% |
| 92 | 1 | 4 | 0.250000 | 16.6353\% | 19.9447\% | 0.7 | 0.8 | 150\% | 125\% |
| 93 | 0 | 2 | 0.000000 | 18.5330\% | 22.2548\% | 0.4 | 0.4 | 0\% | 0\% |
| 94 | 0 | 1 | 0.000000 | 20.5079\% | 24.5648\% | 0.2 | 0.2 | 0\% | 0\% |
| 95 | 0 | 1 | 0.000000 | 22.7872\% | 26.8748\% | 0.2 | 0.3 | 0\% | 0\% |
| 96 | 0 | 0 | N/A | 24.9172\% | 29.1848\% | 0 | 0 | 0\% | 0\% |
| 97 | 0 | 0 | N/A | 27.0854\% | 31.4948\% | 0 | 0 | 0\% | 0\% |
| 98 | 0 | 0 | N/A | 29.6147\% | 34.7464\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 31.8509\% | 37.9980\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 34 | 962 |  |  |  | 31.7 | 32.1 | 107\% | 106\% |
| 100 or more | 0 | 0 | N/A | 37.1685\% | 47.7528\% | 0 | 0 | 0\% | 0\% |
| Total | 34 | 962 |  |  |  | 31.7 | 32.1 | 107\% | 106\% |


|  | TABLE 2B |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 0 | N/A | 1.6533\% | 1.0154\% | 0 | 0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 1.6635\% | 1.1108\% | 0 | 0 | 0\% | 0\% |
| 43 | 0 | 1 | 0.000000 | 1.6740\% | 1.2063\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 6 | 0.000000 | 1.6847\% | 1.3017\% | 0.1 | 0.1 | 0\% | 0\% |
| 45 | 0 | 9 | 0.000000 | 1.7182\% | 1.3972\% | 0.2 | 0.1 | 0\% | 0\% |
| 46 | 0 | 12 | 0.000000 | 1.7526\% | 1.4926\% | 0.2 | 0.2 | 0\% | 0\% |
| 47 | 0 | 14 | 0.000000 | 1.7878\% | 1.5881\% | 0.3 | 0.2 | 0\% | 0\% |
| 48 | 0 | 11 | 0.000000 | 1.8000\% | 1.6835\% | 0.2 | 0.2 | 0\% | 0\% |
| 49 | 0 | 14 | 0.000000 | 1.8124\% | 1.7790\% | 0.3 | 0.2 | 0\% | 0\% |
| 50 | 2 | 20 | 0.100000 | 1.8011\% | 1.8744\% | 0.4 | 0.4 | 555\% | 533\% |
| 51 | 0 | 25 | 0.000000 | 1.7900\% | 1.9699\% | 0.4 | 0.5 | 0\% | 0\% |
| 52 | 2 | 39 | 0.051282 | 1.7559\% | 2.0653\% | 0.7 | 0.8 | 292\% | 248\% |
| 53 | 0 | 42 | 0.000000 | 1.7226\% | 2.0653\% | 0.7 | 0.9 | 0\% | 0\% |
| 54 | 0 | 49 | 0.000000 | 1.6902\% | 2.0653\% | 0.8 | 1.0 | 0\% | 0\% |
| 55 | 1 | 62 | 0.016129 | 1.6587\% | 2.0653\% | 1.0 | 1.3 | 97\% | 78\% |
| 56 | 2 | 62 | 0.032258 | 1.6279\% | 2.0653\% | 1.0 | 1.3 | 198\% | 156\% |
| 57 | 2 | 67 | 0.029851 | 1.6189\% | 1.9546\% | 1.1 | 1.3 | 184\% | 153\% |
| 58 | 1 | 74 | 0.013514 | 1.6313\% | 1.9546\% | 1.2 | 1.4 | 83\% | 69\% |
| 59 | 1 | 83 | 0.012048 | 1.6881\% | 1.9546\% | 1.4 | 1.6 | 71\% | 62\% |
| 60 | 1 | 94 | 0.010638 | 1.7816\% | 1.9546\% | 1.7 | 1.8 | 60\% | 54\% |
| 61 | 2 | 110 | 0.018182 | 1.8799\% | 1.9546\% | 2.1 | 2.2 | 97\% | 93\% |
| 62 | 0 | 128 | 0.000000 | 1.9415\% | 1.7252\% | 2.5 | 2.2 | 0\% | 0\% |
| 63 | 2 | 137 | 0.014599 | 2.0047\% | 1.7330\% | 2.7 | 2.4 | 73\% | 84\% |
| 64 | 4 | 150 | 0.026667 | 2.1148\% | 1.7409\% | 3.2 | 2.6 | 126\% | 153\% |
| 65 | 4 | 137 | 0.029197 | 2.1842\% | 1.7487\% | 3.0 | 2.4 | 134\% | 167\% |
| 66 | 5 | 141 | 0.035461 | 2.3051\% | 1.7565\% | 3.3 | 2.5 | 154\% | 202\% |
| 67 | 5 | 123 | 0.040650 | 2.3827\% | 1.7644\% | 2.9 | 2.2 | 171\% | 230\% |
| 68 | 2 | 102 | 0.019608 | 2.4652\% | 1.8868\% | 2.5 | 1.9 | 80\% | 104\% |
| 69 | 2 | 108 | 0.018519 | 2.6087\% | 2.0093\% | 2.8 | 2.2 | 71\% | 92\% |
| 70 | 2 | 92 | 0.021739 | 2.7065\% | 2.1318\% | 2.5 | 2.0 | 80\% | 102\% |
| 71 | 2 | 93 | 0.021505 | 2.7896\% | 2.2542\% | 2.6 | 2.1 | 77\% | 95\% |
| 72 | 0 | 86 | 0.000000 | 2.9038\% | 2.3767\% | 2.5 | 2.0 | 0\% | 0\% |
| 73 | 4 | 63 | 0.063492 | 3.0033\% | 2.6582\% | 1.9 | 1.7 | 211\% | 239\% |
| 74 | 2 | 48 | 0.041667 | 3.1377\% | 2.9398\% | 1.5 | 1.4 | 133\% | 142\% |
| 75 | 0 | 32 | 0.000000 | 3.3279\% | 3.2213\% | 1.1 | 1.0 | 0\% | 0\% |
| 76 | 1 | 25 | 0.040000 | 3.4898\% | 3.5029\% | 0.9 | 0.9 | 115\% | 114\% |
| 77 | 0 | 21 | 0.000000 | 3.6178\% | 3.7844\% | 0.8 | 0.8 | 0\% | 0\% |
| 78 | 0 | 24 | 0.000000 | 3.8871\% | 4.2531\% | 0.9 | 1.0 | 0\% | 0\% |
| 79 | 1 | 23 | 0.043478 | 4.1121\% | 4.7217\% | 0.9 | 1.1 | 106\% | 92\% |
| 80 | 1 | 20 | 0.050000 | 4.4477\% | 5.1903\% | 0.9 | 1.0 | 112\% | 96\% |
| 81 | 1 | 15 | 0.066667 | 4.8139\% | 5.6589\% | 0.7 | 0.8 | 138\% | 118\% |
| 82 | 0 | 11 | 0.000000 | 5.2127\% | 6.1275\% | 0.6 | 0.7 | 0\% | 0\% |
| 83 | 0 | 6 | 0.000000 | 5.6465\% | 6.7947\% | 0.3 | 0.4 | 0\% | 0\% |
| 84 | 0 | 8 | 0.000000 | 6.4876\% | 7.4619\% | 0.5 | 0.6 | 0\% | 0\% |
| 85 | 1 | 7 | 0.142857 | 7.3448\% | 8.1291\% | 0.5 | 0.6 | 195\% | 176\% |
| 86 | 0 | 5 | 0.000000 | 8.0442\% | 8.7962\% | 0.4 | 0.4 | 0\% | 0\% |
| 87 | 1 | 7 | 0.142857 | 8.9100\% | 9.4634\% | 0.6 | 0.7 | 160\% | 151\% |
| 88 | 0 | 4 | 0.000000 | 9.7110\% | 10.3242\% | 0.4 | 0.4 | 0\% | 0\% |
| 89 | 1 | 6 | 0.166667 | 11.0304\% | 11.1849\% | 0.7 | 0.7 | 151\% | 149\% |
| 90 | 2 | 4 | 0.500000 | 12.4890\% | 12.0457\% | 0.5 | 0.5 | 400\% | 415\% |
| 91 | 0 | 0 | N/A | 14.2892\% | 12.9065\% | 0 | 0 | 0\% | 0\% |
| 92 | 0 | 0 | N/A | 15.8160\% | 13.7672\% | 0 | 0 | 0\% | 0\% |
| 93 | 1 | 1 | 1.000000 | 17.1565\% | 14.8001\% | 0.2 | 0.1 | 583\% | 676\% |
| 94 | 0 | 0 | N/A | 19.0191\% | 15.8330\% | 0 | 0 | 0\% | 0\% |
| 95 | 0 | 0 | N/A | 21.1397\% | 16.8659\% | 0 | 0 | 0\% | 0\% |
| 96 | 0 | 0 | N/A | 22.4839\% | 17.8988\% | 0 | 0 | 0\% | 0\% |
| 97 | 0 | 0 | N/A | 23.1032\% | 18.9317\% | 0 | 0 | 0\% | 0\% |
| 98 | 0 | 0 | N/A | 23.4633\% | 20.0987\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 24.8039\% | 21.2658\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 58 | 2,421 |  |  |  | 58.5 | 54.8 | 99\% | 106\% |
| 100 or more | 0 | 0 | N/A | 25.4498\% | 24.7670\% | 0 | 0 | 0\% | 0\% |
| Total | 58 | 2,421 |  |  |  | 58.5 | 54.8 | 99\% | 106\% |

## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM MORTALITY EXPERIENCE OF DISABILITY RETIREES

 MEN|  | TABLE 2A GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed (8) / (3) | Expected | Proposed | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 6 | 0.000000 | 1.6362\% | 1.8808\% | 0.1 | 0.1 | 0\% | 0\% |
| 45-49 | 1 | 47 | 0.021277 | 1.7698\% | 2.1619\% | 0.8 | 1.0 | 120\% | 98\% |
| 50-54 | 2 | 128 | 0.015625 | 1.9221\% | 2.3324\% | 2.5 | 3.0 | 81\% | 67\% |
| 55-59 | 4 | 159 | 0.025157 | 2.0981\% | 2.3604\% | 3.3 | 3.8 | 120\% | 107\% |
| 60-64 | 6 | 200 | 0.030000 | 2.4893\% | 2.3267\% | 5.0 | 4.7 | 121\% | 129\% |
| 65-69 | 4 | 153 | 0.026144 | 2.9853\% | 2.3942\% | 4.6 | 3.7 | 88\% | 109\% |
| 70-74 | 3 | 109 | 0.027523 | 3.6436\% | 2.9606\% | 4.0 | 3.2 | 76\% | 93\% |
| 75-79 | 5 | 66 | 0.075758 | 4.6857\% | 4.2534\% | 3.1 | 2.8 | 162\% | 178\% |
| 80-84 | 6 | 55 | 0.109091 | 6.8156\% | 7.5910\% | 3.7 | 4.2 | 160\% | 144\% |
| 85-89 | 1 | 26 | 0.038462 | 9.4702\% | 11.6725\% | 2.5 | 3.0 | 41\% | 33\% |
| 90-94 | 2 | 12 | 0.166667 | 16.0006\% | 19.6719\% | 1.9 | 2.4 | 104\% | 85\% |
| 95-99 | 0 | 1 | 0.000000 | 22.7872\% | 26.8748\% | 0.2 | 0.3 | 0\% | 0\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 34 | 962 |  |  |  | 31.7 | 32.1 | 107\% | 106\% |

## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM MORTALITY EXPERIENCE OF DISABILITY RETIREES WOMEN

|  | TABLE 2B GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \begin{array}{l} \text { (2) } /(3) \end{array} \\ & \hline \end{aligned}$ | Expected $(7) /(3)$ | Proposed (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 7 | 0.000000 | 1.6832\% | 1.2881\% | 0.1 | 0.1 | 0\% | 0\% |
| 45-49 | 0 | 60 | 0.000000 | 1.7783\% | 1.6024\% | 1.1 | 1.0 | 0\% | 0\% |
| 50-54 | 4 | 175 | 0.022857 | 1.7395\% | 2.0299\% | 3.0 | 3.6 | 131\% | 113\% |
| 55-59 | 7 | 348 | 0.020115 | 1.6467\% | 1.9940\% | 5.7 | 6.9 | 122\% | 101\% |
| 60-64 | 9 | 619 | 0.014540 | 1.9623\% | 1.8063\% | 12.1 | 11.2 | 74\% | 80\% |
| 65-69 | 18 | 611 | 0.029460 | 2.3740\% | 1.8228\% | 14.5 | 11.1 | 124\% | 162\% |
| 70-74 | 10 | 382 | 0.026178 | 2.8743\% | 2.4051\% | 11.0 | 9.2 | 91\% | 109\% |
| 75-79 | 2 | 125 | 0.016000 | 3.6606\% | 3.8464\% | 4.6 | 4.8 | 44\% | 42\% |
| 80-84 | 2 | 60 | 0.033333 | 5.0714\% | 5.9426\% | 3.0 | 3.6 | 66\% | 56\% |
| 85-89 | 3 | 29 | 0.103448 | 8.9321\% | 9.5012\% | 2.6 | 2.8 | 116\% | 109\% |
| 90-94 | 3 | 5 | 0.600000 | 13.4225\% | 12.5966\% | 0.7 | 0.6 | 447\% | 476\% |
| 95-99 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 58 | 2,421 |  |  |  | 58.5 | 54.8 | 99\% | 106\% |


|  | TABLE 2A |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | $\begin{gathered} \text { Expected } \\ \text { (3) } \times(5) \\ \hline \end{gathered}$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 4 | 0.000000 | 1.5969\% | 1.8100\% | 0.1 | 0.1 | 0\% | 0\% |
| 42 | 0 | 9 | 0.000000 | 1.6327\% | 1.9033\% | 0.1 | 0.2 | 0\% | 0\% |
| 43 | 0 | 11 | 0.000000 | 1.6696\% | 1.9933\% | 0.2 | 0.2 | 0\% | 0\% |
| 44 | 0 | 15 | 0.000000 | 1.7075\% | 2.0795\% | 0.3 | 0.3 | 0\% | 0\% |
| 45 | 0 | 16 | 0.000000 | 1.7465\% | 2.1618\% | 0.3 | 0.3 | 0\% | 0\% |
| 46 | 0 | 23 | 0.000000 | 1.7866\% | 2.2401\% | 0.4 | 0.5 | 0\% | 0\% |
| 47 | 0 | 28 | 0.000000 | 1.8278\% | 2.3151\% | 0.5 | 0.6 | 0\% | 0\% |
| 48 | 0 | 35 | 0.000000 | 1.8702\% | 2.3449\% | 0.7 | 0.8 | 0\% | 0\% |
| 49 | 1 | 41 | 0.024390 | 1.9138\% | 2.3721\% | 0.8 | 1.0 | 127\% | 103\% |
| 50 | 1 | 48 | 0.020833 | 1.9586\% | 2.3969\% | 0.9 | 1.2 | 106\% | 87\% |
| 51 | 1 | 52 | 0.019231 | 2.0046\% | 2.4195\% | 1.0 | 1.3 | 96\% | 79\% |
| 52 | 1 | 63 | 0.015873 | 2.0520\% | 2.4399\% | 1.3 | 1.5 | 77\% | 65\% |
| 53 | 2 | 68 | 0.029412 | 2.0666\% | 2.4198\% | 1.4 | 1.6 | 142\% | 122\% |
| 54 | 0 | 80 | 0.000000 | 2.0815\% | 2.4026\% | 1.7 | 1.9 | 0\% | 0\% |
| 55 | 2 | 83 | 0.024096 | 2.0628\% | 2.3904\% | 1.7 | 2.0 | 117\% | 101\% |
| 56 | 7 | 87 | 0.080460 | 2.1150\% | 2.3840\% | 1.8 | 2.1 | 380\% | 337\% |
| 57 | 1 | 82 | 0.012195 | 2.1961\% | 2.3848\% | 1.8 | 2.0 | 56\% | 51\% |
| 58 | 3 | 82 | 0.036585 | 2.2799\% | 2.3903\% | 1.9 | 2.0 | 160\% | 153\% |
| 59 | 4 | 90 | 0.044444 | 2.3546\% | 2.4016\% | 2.1 | 2.2 | 189\% | 185\% |
| 60 | 0 | 83 | 0.000000 | 2.4312\% | 2.4179\% | 2.0 | 2.0 | 0\% | 0\% |
| 61 | 0 | 89 | 0.000000 | 2.5234\% | 2.4368\% | 2.2 | 2.2 | 0\% | 0\% |
| 62 | 2 | 88 | 0.022727 | 2.6062\% | 2.3796\% | 2.3 | 2.1 | 87\% | 96\% |
| 63 | 6 | 83 | 0.072289 | 2.7062\% | 2.4106\% | 2.2 | 2.0 | 267\% | 300\% |
| 64 | 4 | 78 | 0.051282 | 2.7973\% | 2.4397\% | 2.2 | 1.9 | 183\% | 210\% |
| 65 | 1 | 68 | 0.014706 | 2.8942\% | 2.4667\% | 2.0 | 1.7 | 51\% | 60\% |
| 66 | 1 | 70 | 0.014286 | 3.0133\% | 2.4913\% | 2.1 | 1.7 | 47\% | 57\% |
| 67 | 1 | 65 | 0.015385 | 3.1264\% | 2.5144\% | 2.0 | 1.6 | 49\% | 61\% |
| 68 | 1 | 65 | 0.015385 | 3.2325\% | 2.6346\% | 2.1 | 1.7 | 48\% | 58\% |
| 69 | 1 | 59 | 0.016949 | 3.3648\% | 2.7547\% | 2.0 | 1.6 | 50\% | 62\% |
| 70 | 4 | 56 | 0.071429 | 3.4911\% | 2.8740\% | 2.0 | 1.6 | 205\% | 249\% |
| 71 |  | 50 | 0.020000 | 3.6474\% | 2.9929\% | 1.8 | 1.5 | 55\% | 67\% |
| 72 | 2 | 47 | 0.042553 | 3.8180\% | 3.1113\% | 1.8 | 1.5 | 111\% | 137\% |
| 73 | 1 | 46 | 0.021739 | 4.0038\% | 3.4240\% | 1.8 | 1.6 | 54\% | 63\% |
| 74 | 2 | 39 | 0.051282 | 4.2054\% | 3.7360\% | 1.6 | 1.5 | 122\% | 137\% |
| 75 | 0 | 36 | 0.000000 | 4.4457\% | 4.0465\% | 1.6 | 1.5 | 0\% | 0\% |
| 76 | 2 | 33 | 0.060606 | 4.7030\% | 4.3564\% | 1.6 | 1.4 | 129\% | 139\% |
| 77 | 3 | 36 | 0.083333 | 5.0049\% | 4.6640\% | 1.8 | 1.7 | 167\% | 179\% |
| 78 | 1 | 30 | 0.033333 | 5.3300\% | 5.2821\% | 1.6 | 1.6 | 63\% | 63\% |
| 79 | 1 | 30 | 0.033333 | 5.6789\% | 5.8980\% | 1.7 | 1.8 | 59\% | 57\% |
| 80 | 3 | 30 | 0.100000 | 6.0528\% | 6.5119\% | 1.8 | 2.0 | 165\% | 154\% |
| 81 | 4 | 28 | 0.142857 | 6.4519\% | 7.1230\% | 1.8 | 2.0 | 221\% | 201\% |
| 82 | 1 | 24 | 0.041667 | 6.8771\% | 7.7316\% | 1.7 | 1.9 | 61\% | 54\% |
| 83 | 1 | 23 | 0.043478 | 7.2945\% | 8.7906\% | 1.7 | 2.0 | 60\% | 49\% |
| 84 | 4 | 23 | 0.173913 | 7.7784\% | 9.8465\% | 1.8 | 2.3 | 224\% | 177\% |
| 85 | 0 | 16 | 0.000000 | 8.4363\% | 10.8994\% | 1.3 | 1.7 | 0\% | 0\% |
| 86 | 0 | 15 | 0.000000 | 9.3129\% | 11.9481\% | 1.4 | 1.8 | 0\% | 0\% |
| 87 | 1 | 12 | 0.083333 | 10.2406\% | 12.9922\% | 1.2 | 1.6 | 81\% | 64\% |
| 88 | 2 | 9 | 0.222222 | 11.1772\% | 14.6400\% | 1.0 | 1.3 | 199\% | 152\% |
| 89 | 0 | 6 | 0.000000 | 12.0628\% | 16.2764\% | 0.7 | 1.0 | 0\% | 0\% |
| 90 | 0 | 6 | 0.000000 | 13.0132\% | 17.8999\% | 0.8 | 1.1 | 0\% | 0\% |
| 91 | 1 | 5 | 0.200000 | 14.8368\% | 19.5091\% | 0.7 | 1.0 | 135\% | 103\% |
| 92 | 1 | 4 | 0.250000 | 16.7859\% | 21.0982\% | 0.7 | 0.8 | 149\% | 118\% |
| 93 | 0 | 2 | 0.000000 | 18.7008\% | 23.4462\% | 0.4 | 0.5 | 0\% | 0\% |
| 94 | 0 | 1 | 0.000000 | 20.6936\% | 25.7826\% | 0.2 | 0.3 | 0\% | 0\% |
| 95 | 0 | 1 | 0.000000 | 22.9245\% | 28.1157\% | 0.2 | 0.3 | 0\% | 0\% |
| 96 | 0 | 0 | N/A | 25.0673\% | 30.4581\% | 0 | 0 | 0\% | 0\% |
| 97 | 0 | 0 | N/A | 27.2486\% | 32.7890\% | 0 | 0 | 0\% | 0\% |
| 98 | 0 | 0 | N/A | 29.7037\% | 36.0863\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 31.9466\% | 39.3715\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 75 | 2,273 |  |  |  | 74.9 | 77.2 | 100\% | 97\% |
| 100 or more | 0 | 0 | N/A | 37.1685\% | 49.4789\% | 0 | 0 | 0\% | 0\% |
| Total | 75 | 2,273 |  |  |  | 74.9 | 77.2 | 100\% | 97\% |

## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM MORTALITY EXPERIENCE OF DISABILITY RETIREES WOMEN

| Age | TABLE 2B |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 2 | 0.000000 | 1.7300\% | 1.0907\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 3 | 0.000000 | 1.7407\% | 1.1892\% | 0.1 | 0.0 | 0\% | 0\% |
| 43 | 0 | 8 | 0.000000 | 1.7517\% | 1.2845\% | 0.1 | 0.1 | 0\% | 0\% |
| 44 | 0 | 11 | 0.000000 | 1.7629\% | 1.3765\% | 0.2 | 0.2 | 0\% | 0\% |
| 45 | 0 | 14 | 0.000000 | 1.8034\% | 1.4657\% | 0.3 | 0.2 | 0\% | 0\% |
| 46 | 0 | 22 | 0.000000 | 1.8451\% | 1.5519\% | 0.4 | 0.3 | 0\% | 0\% |
| 47 | 0 | 25 | 0.000000 | 1.8879\% | 1.6357\% | 0.5 | 0.4 | 0\% | 0\% |
| 48 | 1 | 30 | 0.033333 | 1.9008\% | 1.7183\% | 0.6 | 0.5 | 175\% | 194\% |
| 49 | 0 | 35 | 0.000000 | 1.9139\% | 1.8016\% | 0.7 | 0.6 | 0\% | 0\% |
| 50 | 3 | 52 | 0.057692 | 1.8961\% | 1.8876\% | 1.0 | 1.0 | 304\% | 306\% |
| 51 | 2 | 57 | 0.035088 | 1.8787\% | 1.9774\% | 1.1 | 1.1 | 187\% | 177\% |
| 52 | 3 | 82 | 0.036585 | 1.8317\% | 2.0728\% | 1.5 | 1.7 | 200\% | 177\% |
| 53 | 1 | 101 | 0.009901 | 1.7861\% | 2.0780\% | 1.8 | 2.1 | 55\% | 48\% |
| 54 | 2 | 119 | 0.016807 | 1.7420\% | 2.0884\% | 2.1 | 2.5 | 96\% | 80\% |
| 55 | 4 | 143 | 0.027972 | 1.6991\% | 2.1034\% | 2.4 | 3.0 | 165\% | 133\% |
| 56 | 3 | 162 | 0.018519 | 1.6576\% | 2.1210\% | 2.7 | 3.4 | 112\% | 87\% |
| 57 | 5 | 190 | 0.026316 | 1.6435\% | 2.0254\% | 3.1 | 3.8 | 160\% | 130\% |
| 58 | 7 | 218 | 0.032110 | 1.6560\% | 2.0436\% | 3.6 | 4.5 | 194\% | 157\% |
| 59 | 1 | 229 | 0.004367 | 1.7137\% | 2.0609\% | 3.9 | 4.7 | 25\% | 21\% |
| 60 | 4 | 259 | 0.015444 | 1.8086\% | 2.0758\% | 4.7 | 5.4 | 85\% | 74\% |
| 61 | 8 | 275 | 0.029091 | 1.9084\% | 2.0884\% | 5.2 | 5.7 | 152\% | 139\% |
| 62 | 2 | 293 | 0.006826 | 1.9709\% | 1.8515\% | 5.8 | 5.4 | 35\% | 37\% |
| 63 | 9 | 310 | 0.029032 | 2.0350\% | 1.8660\% | 6.3 | 5.8 | 143\% | 156\% |
| 64 | 5 | 311 | 0.016077 | 2.1469\% | 1.8781\% | 6.7 | 5.8 | 75\% | 86\% |
| 65 | 8 | 291 | 0.027491 | 2.2173\% | 1.8881\% | 6.5 | 5.5 | 124\% | 146\% |
| 66 | 7 | 270 | 0.025926 | 2.3400\% | 1.8969\% | 6.3 | 5.1 | 111\% | 137\% |
| 67 | 6 | 238 | 0.025210 | 2.4188\% | 1.9046\% | 5.8 | 4.5 | 104\% | 132\% |
| 68 | 3 | 211 | 0.014218 | 2.5026\% | 2.0353\% | 5.3 | 4.3 | 57\% | 70\% |
| 69 | 4 | 188 | 0.021277 | 2.6482\% | 2.1656\% | 5.0 | 4.1 | 80\% | 98\% |
| 70 | 3 | 161 | 0.018634 | 2.7476\% | 2.2953\% | 4.4 | 3.7 | 68\% | 81\% |
| 71 | 5 | 142 | 0.035211 | 2.8404\% | 2.4246\% | 4.0 | 3.4 | 124\% | 145\% |
| 72 | 2 | 126 | 0.015873 | 2.9567\% | 2.5535\% | 3.7 | 3.2 | 54\% | 62\% |
| 73 | 7 | 97 | 0.072165 | 3.0673\% | 2.8531\% | 3.0 | 2.8 | 235\% | 253\% |
| 74 | 2 | 78 | 0.025641 | 3.2046\% | 3.1514\% | 2.5 | 2.5 | 80\% | 81\% |
| 75 | 0 | 59 | 0.000000 | 3.4090\% | 3.4497\% | 2.0 | 2.0 | 0\% | 0\% |
| 76 | 1 | 50 | 0.020000 | 3.5749\% | 3.7481\% | 1.8 | 1.9 | 56\% | 53\% |
| 77 | 0 | 44 | 0.000000 | 3.6949\% | 4.0473\% | 1.6 | 1.8 | 0\% | 0\% |
| 78 | 0 | 41 | 0.000000 | 3.9699\% | 4.5471\% | 1.6 | 1.9 | 0\% | 0\% |
| 79 | 2 | 37 | 0.054054 | 4.1997\% | 5.0496\% | 1.6 | 1.9 | 129\% | 107\% |
| 80 | 2 | 32 | 0.062500 | 4.5424\% | 5.5530\% | 1.5 | 1.8 | 138\% | 113\% |
| 81 | 1 | 28 | 0.035714 | 4.9165\% | 6.0594\% | 1.4 | 1.7 | 73\% | 59\% |
| 82 | 1 | 25 | 0.040000 | 5.3238\% | 6.5665\% | 1.3 | 1.6 | 75\% | 61\% |
| 83 | 1 | 20 | 0.050000 | 5.7668\% | 7.2897\% | 1.2 | 1.5 | 87\% | 69\% |
| 84 | 0 | 16 | 0.000000 | 6.6258\% | 8.0129\% | 1.1 | 1.3 | 0\% | 0\% |
| 85 | 1 | 15 | 0.066667 | 7.4786\% | 8.7365\% | 1.1 | 1.3 | 89\% | 76\% |
| 86 | 0 | 12 | 0.000000 | 8.1660\% | 9.4574\% | 1.0 | 1.1 | 0\% | 0\% |
| 87 | 2 | 13 | 0.153846 | 9.0177\% | 10.1716\% | 1.2 | 1.3 | 171\% | 151\% |
| 88 | 1 | 9 | 0.111111 | 9.8285\% | 11.0876\% | 0.9 | 1.0 | 113\% | 100\% |
| 89 | 1 | 8 | 0.125000 | 11.1303\% | 11.9985\% | 0.9 | 1.0 | 112\% | 104\% |
| 90 | 2 | 5 | 0.400000 | 12.6021\% | 12.9008\% | 0.6 | 0.6 | 317\% | 310\% |
| 91 | 0 | 1 | 0.000000 | 14.4185\% | 13.7930\% | 0.1 | 0.1 | 0\% | 0\% |
| 92 | 0 | 1 | 0.000000 | 15.9592\% | 14.6723\% | 0.2 | 0.1 | 0\% | 0\% |
| 93 | 1 | 1 | 1.000000 | 17.2598\% | 15.7217\% | 0.2 | 0.2 | 579\% | 636\% |
| 94 | 0 | 0 | N/A | 19.1337\% | 16.7606\% | 0 | 0 | 0\% | 0\% |
| 95 | 0 | 0 | N/A | 21.2670\% | 17.7923\% | 0 | 0 | 0\% | 0\% |
| 96 | 0 | 0 | N/A | 22.6194\% | 18.8301\% | 0 | 0 | 0\% | 0\% |
| 97 | 0 | 0 | N/A | 23.1727\% | 19.8581\% | 0 | 0 | 0\% | 0\% |
| 98 | 0 | 0 | N/A | 23.5338\% | 21.0246\% | 0 | 0 | 0\% | 0\% |
| 99 | 0 | 0 | N/A | 24.8785\% | 22.1823\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 123 | 5,170 |  |  |  | 122.3 | 121.6 | 101\% | 101\% |
| 100 or more | 0 | 0 | N/A | 25.4498\% | 25.8344\% | 0 | 0 | 0\% | 0\% |
| Total | 123 | 5,170 |  |  |  | 122.3 | 121.6 | 101\% | 101\% |

## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN

|  | TABLE 2A GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected $(7) /(3)$ | Proposed (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 39 | 0.000000 | 1.6682\% | 1.9869\% | 0.7 | 0.8 | 0\% | 0\% |
| 45-49 | 1 | 143 | 0.006993 | 1.8471\% | 2.3095\% | 2.6 | 3.3 | 38\% | 30\% |
| 50-54 | 5 | 311 | 0.016077 | 2.0404\% | 2.4159\% | 6.3 | 7.5 | 79\% | 67\% |
| 55-59 | 17 | 424 | 0.040094 | 2.2032\% | 2.3904\% | 9.3 | 10.1 | 182\% | 168\% |
| 60-64 | 12 | 421 | 0.028504 | 2.6093\% | 2.4165\% | 11.0 | 10.2 | 109\% | 118\% |
| 65-69 | 5 | 327 | 0.015291 | 3.1180\% | 2.5668\% | 10.2 | 8.4 | 49\% | 60\% |
| 70-74 | 10 | 238 | 0.042017 | 3.8046\% | 3.1934\% | 9.1 | 7.6 | 110\% | 132\% |
| 75-79 | 7 | 165 | 0.042424 | 5.0042\% | 4.8045\% | 8.3 | 7.9 | 85\% | 88\% |
| 80-84 | 13 | 128 | 0.101563 | 6.8278\% | 7.8829\% | 8.7 | 10.1 | 149\% | 129\% |
| 85-89 | 3 | 58 | 0.051724 | 9.8368\% | 12.7403\% | 5.7 | 7.4 | 53\% | 41\% |
| 90-94 | 2 | 18 | 0.111111 | 15.4168\% | 20.1118\% | 2.8 | 3.6 | 72\% | 55\% |
| 95-99 | 0 | 1 | 0.000000 | 22.9245\% | 28.1157\% | 0.2 | 0.3 | 0\% | 0\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 75 | 2,273 |  |  |  | 74.9 | 77.2 | 100\% | 97\% |

## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM MORTALITY EXPERIENCE OF DISABILITY RETIREES WOMEN

|  | TABLE 2B GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate | Expected $(7) /(3)$ | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 24 | 0.000000 | 1.7537\% | 1.2986\% | 0.4 | 0.3 | 0\% | 0\% |
| 45-49 | 1 | 126 | 0.007937 | 1.8813\% | 1.6679\% | 2.4 | 2.1 | 42\% | 48\% |
| 50-54 | 11 | 411 | 0.026764 | 1.8092\% | 2.0419\% | 7.4 | 8.4 | 148\% | 131\% |
| 55-59 | 20 | 942 | 0.021231 | 1.6743\% | 2.0665\% | 15.8 | 19.5 | 127\% | 103\% |
| 60-64 | 28 | 1,448 | 0.019337 | 1.9815\% | 1.9454\% | 28.7 | 28.2 | 98\% | 99\% |
| 65-69 | 28 | 1,198 | 0.023372 | 2.4029\% | 1.9628\% | 28.8 | 23.5 | 97\% | 119\% |
| 70-74 | 19 | 604 | 0.031457 | 2.9234\% | 2.5797\% | 17.7 | 15.6 | 108\% | 122\% |
| 75-79 | 3 | 231 | 0.012987 | 3.7256\% | 4.0791\% | 8.6 | 9.4 | 35\% | 32\% |
| 80-84 | 5 | 121 | 0.041322 | 5.2683\% | 6.4919\% | 6.4 | 7.9 | 78\% | 64\% |
| 85-89 | 5 | 57 | 0.087719 | 8.8579\% | 10.0446\% | 5.0 | 5.7 | 99\% | 87\% |
| 90-94 | 3 | 8 | 0.375000 | 13.8310\% | 13.5863\% | 1.1 | 1.1 | 271\% | 276\% |
| 95-99 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 100+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 123 | 5,170 |  |  |  | 122.3 | 121.6 | 101\% | 101\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN AND WOMEN

| Plan <br> Year <br> Ending <br> June 30, | TABLE 2C <br> Life Years Exposed | Actual Deaths | Expected Deaths | 10-YEAR PERIOD ENDING 6/30/2013 <br> Mortality Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / Expected | $\begin{aligned} & \text { Actual } \\ & \text { (3) / (2) } \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 564 | 17 | 12.0 | 142\% | 3.0142\% | 2.1289\% |
| 2005 | 623 | 19 | 13.4 | 142\% | 3.0498\% | 2.1472\% |
| 2006 | 669 | 13 | 14.8 | 88\% | 1.9432\% | 2.2052\% |
| 2007 | 686 | 15 | 15.5 | 97\% | 2.1866\% | 2.2581\% |
| 2008 | 754 | 20 | 17.1 | 117\% | 2.6525\% | 2.2680\% |
| 2009 | 767 | 22 | 17.9 | 123\% | 2.8683\% | 2.3289\% |
| 2010 | 795 | 20 | 18.9 | 106\% | 2.5157\% | 2.3736\% |
| 2011 | 817 | 30 | 19.6 | 153\% | 3.6720\% | 2.4001\% |
| 2012 | 869 | 24 | 20.5 | 117\% | 2.7618\% | 2.3571\% |
| 2013 | 912 | 18 | 21.8 | 82\% | 1.9737\% | 2.3942\% |
| Total | 7,456 | 198 | 171.4 | 116\% | 2.6556\% | 2.2987\% |

[^19]
## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM <br> WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS <br> MEN



## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM <br> WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS <br> WOMEN

| Service | TABLE 3B |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Withdrawals | Total Exposed | Actual Rate$(2) /(3)$ | Assumed Probability |  | Expected Withdrawals |  | Actual/Expected |  |
|  |  |  |  | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 0 | 79 | 1,681 | 0.0470 | 4.00\% | 5.00\% | 67.2 | 84.1 | 117\% | 94\% |
| 1 | 241 | 4,251 | 0.0567 | 3.80\% | 4.75\% | 161.5 | 201.9 | 149\% | 119\% |
| 2 | 272 | 4,733 | 0.0575 | 3.60\% | 4.50\% | 170.4 | 213.0 | 160\% | 128\% |
| 3 | 232 | 4,355 | 0.0533 | 3.40\% | 4.25\% | 148.1 | 185.1 | 157\% | 125\% |
| 4 | 163 | 4,173 | 0.0391 | 3.20\% | 4.00\% | 133.5 | 166.9 | 122\% | 98\% |
| 5 | 125 | 3,291 | 0.0380 | 3.00\% | 3.75\% | 98.7 | 123.4 | 127\% | 101\% |
| 6 | 116 | 3,309 | 0.0351 | 2.80\% | 3.50\% | 92.7 | 115.8 | 125\% | 100\% |
| 7 | 101 | 3,081 | 0.0328 | 2.60\% | 3.25\% | 80.1 | 100.1 | 126\% | 101\% |
| 8 | 112 | 3,235 | 0.0346 | 2.40\% | 3.00\% | 77.6 | 97.1 | 144\% | 115\% |
| 9 | 111 | 3,110 | 0.0357 | 2.20\% | 2.75\% | 68.4 | 85.5 | 162\% | 130\% |
| 10 | 77 | 2,842 | 0.0271 | 2.00\% | 2.50\% | 56.8 | 71.1 | 135\% | 108\% |
| 11 | 53 | 2,098 | 0.0253 | 1.90\% | 2.38\% | 39.9 | 49.8 | 133\% | 106\% |
| 12 | 37 | 1,555 | 0.0238 | 1.80\% | 2.25\% | 28.0 | 35.0 | 132\% | 106\% |
| 13 | 34 | 1,220 | 0.0279 | 1.70\% | 2.13\% | 20.7 | 25.9 | 164\% | 131\% |
| 14 | 35 | 972 | 0.0360 | 1.60\% | 2.00\% | 15.6 | 19.4 | 225\% | 180\% |
| 15 | 23 | 815 | 0.0282 | 1.50\% | 1.88\% | 12.2 | 15.3 | 188\% | 151\% |
| 16 | 28 | 712 | 0.0393 | 1.40\% | 1.75\% | 10.0 | 12.5 | 281\% | 225\% |
| 17 | 11 | 524 | 0.0210 | 1.30\% | 1.63\% | 6.8 | 8.5 | 161\% | 129\% |
| 18 | 6 | 509 | 0.0118 | 1.20\% | 1.50\% | 6.1 | 7.6 | 98\% | 79\% |
| 19 | 13 | 442 | 0.0294 | 1.10\% | 1.38\% | 4.9 | 6.1 | 267\% | 214\% |
| 20 | 9 | 400 | 0.0225 | 1.00\% | 1.25\% | 4.0 | 5.0 | 225\% | 180\% |
| 21 | 6 | 293 | 0.0205 | 1.00\% | 1.25\% | 2.9 | 3.7 | 205\% | 164\% |
| 22 | 3 | 234 | 0.0128 | 1.00\% | 1.25\% | 2.3 | 2.9 | 128\% | 103\% |
| 23 | 3 | 204 | 0.0147 | 1.00\% | 1.25\% | 2.0 | 2.6 | 147\% | 118\% |
| 24 | 2 | 179 | 0.0112 | 1.00\% | 1.25\% | 1.8 | 2.2 | 112\% | 89\% |
| 25 | 5 | 145 | 0.0345 | 1.00\% | 1.25\% | 1.5 | 1.8 | 345\% | 276\% |
| 26 | 2 | 130 | 0.0154 | 1.00\% | 1.25\% | 1.3 | 1.6 | 154\% | 123\% |
| 27 | 1 | 91 | 0.0110 | 1.00\% | 1.25\% | 0.9 | 1.1 | 110\% | 88\% |
| 28 | 1 | 82 | 0.0122 | 1.00\% | 1.25\% | 0.8 | 1.0 | 122\% | 98\% |
| 29 | 0 | 45 | 0.0000 | 1.00\% | 1.25\% | 0.5 | 0.6 | 0\% | 0\% |
| 30 | 0 | 34 | 0.0000 | 1.00\% | 1.25\% | 0.3 | 0.4 | 0\% | 0\% |
| Subtotal | 1,901 | 48,745 | 0.0390 |  |  | 1,317.6 | 1,647.1 | 144\% | 115\% |
| 31 or more | 2 | 92 | 0.0217 | 1.00\% | 1.25\% | 0.9 | 1.2 | 217\% | 174\% |
| Total | 1,903 | 48,837 | 0.0390 |  |  | 1,318.6 | 1,648.2 | 144\% | 115\% |

# NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM <br> WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS <br> MEN 

| Service | TABLE 3A |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Withdrawals |  | Actual/Expected |  |
|  | Actual <br> Withdrawals | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \begin{array}{c} (2) /(3) \\ \hline \end{array} \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 0 | 87 | 1,281 | 0.0679 | 6.00\% | 7.50\% | 76.9 | 96.1 | 113\% | 91\% |
| 1 | 237 | 3,036 | 0.0781 | 5.60\% | 7.00\% | 170.0 | 212.5 | 139\% | 112\% |
| 2 | 232 | 3,021 | 0.0768 | 5.20\% | 6.50\% | 157.1 | 196.4 | 148\% | 118\% |
| 3 | 195 | 2,612 | 0.0747 | 4.80\% | 6.00\% | 125.4 | 156.7 | 156\% | 124\% |
| 4 | 171 | 2,423 | 0.0706 | 4.40\% | 5.50\% | 106.6 | 133.3 | 160\% | 128\% |
| 5 | 127 | 1,839 | 0.0691 | 4.00\% | 5.00\% | 73.6 | 92.0 | 173\% | 138\% |
| 6 | 104 | 1,659 | 0.0627 | 3.70\% | 4.63\% | 61.4 | 76.7 | 169\% | 136\% |
| 7 | 84 | 1,447 | 0.0581 | 3.40\% | 4.25\% | 49.2 | 61.5 | 171\% | 137\% |
| 8 | 76 | 1,355 | 0.0561 | 3.10\% | 3.88\% | 42.0 | 52.5 | 181\% | 145\% |
| 9 | 50 | 1,179 | 0.0424 | 2.80\% | 3.50\% | 33.0 | 41.3 | 151\% | 121\% |
| 10 | 43 | 1,114 | 0.0386 | 2.50\% | 3.13\% | 27.9 | 34.8 | 154\% | 124\% |
| 11 | 37 | 958 | 0.0386 | 2.30\% | 2.88\% | 22.0 | 27.5 | 168\% | 134\% |
| 12 | 28 | 867 | 0.0323 | 2.10\% | 2.63\% | 18.2 | 22.8 | 154\% | 123\% |
| 13 | 30 | 842 | 0.0356 | 1.90\% | 2.38\% | 16.0 | 20.0 | 188\% | 150\% |
| 14 | 20 | 825 | 0.0242 | 1.70\% | 2.13\% | 14.0 | 17.5 | 143\% | 114\% |
| 15 | 21 | 821 | 0.0256 | 1.50\% | 1.88\% | 12.3 | 15.4 | 171\% | 136\% |
| 16 | 20 | 798 | 0.0251 | 1.40\% | 1.75\% | 11.2 | 14.0 | 179\% | 143\% |
| 17 | 19 | 703 | 0.0270 | 1.30\% | 1.63\% | 9.1 | 11.4 | 208\% | 166\% |
| 18 | 11 | 665 | 0.0165 | 1.20\% | 1.50\% | 8.0 | 10.0 | 138\% | 110\% |
| 19 | 9 | 642 | 0.0140 | 1.10\% | 1.38\% | 7.1 | 8.8 | 127\% | 102\% |
| 20 | 12 | 589 | 0.0204 | 1.00\% | 1.25\% | 5.9 | 7.4 | 204\% | 163\% |
| 21 | 11 | 470 | 0.0234 | 1.00\% | 1.25\% | 4.7 | 5.9 | 234\% | 187\% |
| 22 | 9 | 379 | 0.0237 | 1.00\% | 1.25\% | 3.8 | 4.7 | 237\% | 190\% |
| 23 | 6 | 317 | 0.0189 | 1.00\% | 1.25\% | 3.2 | 4.0 | 189\% | 151\% |
| 24 | 2 | 268 | 0.0075 | 1.00\% | 1.25\% | 2.7 | 3.4 | 75\% | 60\% |
| 25 | 2 | 194 | 0.0103 | 1.00\% | 1.25\% | 1.9 | 2.4 | 103\% | 82\% |
| 26 | 4 | 153 | 0.0261 | 1.00\% | 1.25\% | 1.5 | 1.9 | 261\% | 209\% |
| 27 | 1 | 111 | 0.0090 | 1.00\% | 1.25\% | 1.1 | 1.4 | 90\% | 72\% |
| 28 | 0 | 108 | 0.0000 | 1.00\% | 1.25\% | 1.1 | 1.4 | 0\% | 0\% |
| 29 | 5 | 68 | 0.0735 | 1.00\% | 1.25\% | 0.7 | 0.9 | 735\% | 588\% |
| 30 | 1 | 67 | 0.0149 | 1.00\% | 1.25\% | 0.7 | 0.8 | 149\% | 119\% |
| Total | 1,654 | 30,811 | 0.0537 |  |  | 1,068.1 | 1,335.2 | 155\% | 124\% |
| 31 or more | 2 | 104 | 0.0192 | 1.00\% | 1.25\% | 1.0 | 1.3 | 192\% | 154\% |
| Total | 1,656 | 30,915 | 0.0536 |  |  | 1,069.2 | 1,336.5 | 155\% | 124\% |

## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM <br> WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS <br> WOMEN



## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM

WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS
MEN AND WOMEN

| Plan <br> Year | TABLE 3C |  |  | 10-YEAR PER | ENDING 6/3 Withdr | $\begin{aligned} & 013 \\ & 1 \text { Rate } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending <br> June 30, | Life Years Exposed | Actual Withdrawals | Expected Withdrawals | Actual / Expected | Actual $(3) /(2)$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 16,477 | 914 | 545.0 | 168\% | 5.55\% | 3.31\% |
| 2005 | 15,299 | 130 | 480.5 | 27\% | 0.85\% | 3.14\% |
| 2006 | 16,159 | 1,100 | 502.7 | 219\% | 6.81\% | 3.11\% |
| 2007 | 16,775 | 1,435 | 521.9 | 275\% | 8.55\% | 3.11\% |
| 2008 | 15,892 | 621 | 485.6 | 128\% | 3.91\% | 3.06\% |
| 2009 | 16,398 | 603 | 506.8 | 119\% | 3.68\% | 3.09\% |
| 2010 | 16,238 | 729 | 496.1 | 147\% | 4.49\% | 3.06\% |
| 2011 | 15,986 | 666 | 478.2 | 139\% | 4.17\% | 2.99\% |
| 2012 | 15,770 | 95 | 465.6 | 20\% | 0.60\% | 2.95\% |
| 2013 | 20,120 | 441 | 687.3 | 64\% | 2.19\% | 3.42\% |
| Total | 165,114 | 6,734 | 5,169.6 | 130\% | 4.08\% | 3.13\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY TOTAL - MEN AND WOMEN

|  | TABLE 4A |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 1 | 1 | 1.0000 | 40.00\% | 30.00\% | 0.4 | 0.3 | 250\% | 333\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 1 | 2 | 0.5000 | 40.00\% | 30.00\% | 0.8 | 0.6 | 125\% | 167\% |
| 50 | 0 | 6 | 0.0000 | 40.00\% | 30.00\% | 2.4 | 1.8 | 0\% | 0\% |
| 51 | 1 | 4 | 0.2500 | 40.00\% | 30.00\% | 1.6 | 1.2 | 63\% | 83\% |
| 52 | 0 | 6 | 0.0000 | 40.00\% | 30.00\% | 2.4 | 1.8 | 0\% | 0\% |
| 53 | 2 | 3 | 0.6667 | 40.00\% | 30.00\% | 1.2 | 0.9 | 167\% | 222\% |
| 54 | 7 | 11 | 0.6364 | 36.36\% | 25.45\% | 4.0 | 2.8 | 175\% | 250\% |
| 55 | 3 | 53 | 0.0566 | 38.49\% | 28.11\% | 20.4 | 14.9 | 15\% | 20\% |
| 56 | 14 | 25 | 0.5600 | 28.80\% | 16.00\% | 7.2 | 4.0 | 194\% | 350\% |
| 57 | 22 | 1,525 | 0.0144 | 20.04\% | 5.05\% | 305.6 | 77.0 | 7\% | 29\% |
| 58 | 4 | 120 | 0.0333 | 20.33\% | 5.42\% | 24.4 | 6.5 | 16\% | 62\% |
| 59 | 6 | 104 | 0.0577 | 20.38\% | 5.48\% | 21.2 | 5.7 | 28\% | 105\% |
| 60 | 4 | 101 | 0.0396 | 21.19\% | 6.49\% | 21.4 | 6.6 | 19\% | 61\% |
| 61 | 99 | 166 | 0.5964 | 20.36\% | 5.45\% | 33.8 | 9.1 | 293\% | 1094\% |
| 62 | 45 | 1,097 | 0.0410 | 30.33\% | 39.89\% | 332.7 | 437.6 | 14\% | 10\% |
| 63 | 8 | 73 | 0.1096 | 20.00\% | 15.00\% | 14.6 | 11.0 | 55\% | 73\% |
| 64 | 8 | 66 | 0.1212 | 20.00\% | 15.00\% | 13.2 | 9.9 | 61\% | 81\% |
| 65 | 9 | 39 | 0.2308 | 30.00\% | 15.00\% | 11.7 | 5.9 | 77\% | 154\% |
| 66 | 4 | 32 | 0.1250 | 20.00\% | 15.00\% | 6.4 | 4.8 | 63\% | 83\% |
| 67 | 3 | 22 | 0.1364 | 20.91\% | 15.68\% | 4.6 | 3.5 | 65\% | 87\% |
| 68 | 7 | 31 | 0.2258 | 20.00\% | 15.00\% | 6.2 | 4.7 | 113\% | 151\% |
| 69 | 1 | 21 | 0.0476 | 20.00\% | 15.00\% | 4.2 | 3.2 | 24\% | 32\% |
| 70 | 1 | 13 | 0.0769 | 100.00\% | 60.00\% | 13.0 | 7.8 | 8\% | 13\% |
| Subtotal | 250 | 3,521 |  |  |  | 853.4 | 621.3 | 29\% | 40\% |
| Other | 17 | 201 | 0.0846 | 100.00\% | 60.00\% | 201.0 | 120.6 | 8\% | 14\% |
| Total | 267 | 3,722 |  |  |  | 1,054.4 | 741.9 | 25\% | 36\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 4B |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements <br> Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } / \text { (3) } \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $\text { (3) } \times(5)$ | Proposed $(3) \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 40.00\% | 30.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 40.00\% | 30.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 40.00\% | 30.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 40.00\% | 30.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 40.00\% | 30.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 40.00\% | 30.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 1 | 1 | 1.0000 | 40.00\% | 30.00\% | 0.4 | 0.3 | 250\% | 333\% |
| 47 | 0 | 0 | N/A | 40.00\% | 30.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 40.00\% | 30.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 1 | 2 | 0.5000 | 40.00\% | 30.00\% | 0.8 | 0.6 | 125\% | 167\% |
| 50 | 0 | 6 | 0.0000 | 40.00\% | 30.00\% | 2.4 | 1.8 | 0\% | 0\% |
| 51 | 1 | 4 | 0.2500 | 40.00\% | 30.00\% | 1.6 | 1.2 | 63\% | 83\% |
| 52 | 0 | 6 | 0.0000 | 40.00\% | 30.00\% | 2.4 | 1.8 | 0\% | 0\% |
| 53 | 2 | 3 | 0.6667 | 40.00\% | 30.00\% | 1.2 | 0.9 | 167\% | 222\% |
| 54 | 5 | 9 | 0.5556 | 40.00\% | 30.00\% | 3.6 | 2.7 | 139\% | 185\% |
| 55 | 1 | 49 | 0.0204 | 40.00\% | 30.00\% | 19.6 | 14.7 | 5\% | 7\% |
| 56 | 0 | 11 | 0.0000 | 40.00\% | 30.00\% | 4.4 | 3.3 | 0\% | 0\% |
| 57 | 1 | 3 | 0.3333 | 40.00\% | 30.00\% | 1.2 | 0.9 | 83\% | 111\% |
| 58 | 0 | 2 | 0.0000 | 40.00\% | 30.00\% | 0.8 | 0.6 | 0\% | 0\% |
| 59 | 0 | 2 | 0.0000 | 40.00\% | 30.00\% | 0.8 | 0.6 | 0\% | 0\% |
| 60 | 1 | 6 | 0.1667 | 40.00\% | 30.00\% | 2.4 | 1.8 | 42\% | 56\% |
| 61 | 1 | 3 | 0.3333 | 40.00\% | 30.00\% | 1.2 | 0.9 | 83\% | 111\% |
| 62 | 1 | 12 | 0.0833 | 60.00\% | 30.00\% | 7.2 | 3.6 | 14\% | 28\% |
| 63 | 0 | 0 | N/A | 40.00\% | 30.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 40.00\% | 30.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 60.00\% | 30.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 40.00\% | 30.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 1 | 1 | 1.0000 | 40.00\% | 30.00\% | 0.4 | 0.3 | 250\% | 333\% |
| 68 | 0 | 0 | N/A | 40.00\% | 30.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 40.00\% | 30.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 16 | 120 |  |  |  | 50.4 | 36.0 | 32\% | 44\% |
| Other | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 16 | 120 |  |  |  | 50.4 | 36.0 | 32\% | 44\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY

MEN AND WOMEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 4C |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 20.00\% | 5.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 20.00\% | 5.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 20.00\% | 5.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 20.00\% | 5.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 20.00\% | 5.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 20.00\% | 5.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 20.00\% | 5.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 20.00\% | 5.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 20.00\% | 5.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 20.00\% | 5.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 20.00\% | 5.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 20.00\% | 5.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 20.00\% | 5.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 20.00\% | 5.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 2 | 2 | 1.0000 | 20.00\% | 5.00\% | 0.4 | 0.1 | 500\% | 2000\% |
| 55 | 2 | 4 | 0.5000 | 20.00\% | 5.00\% | 0.8 | 0.2 | 250\% | 1000\% |
| 56 | 14 | 14 | 1.0000 | 20.00\% | 5.00\% | 2.8 | 0.7 | 500\% | 2000\% |
| 57 | 21 | 1,522 | 0.0138 | 20.00\% | 5.00\% | 304.4 | 76.1 | 7\% | 28\% |
| 58 | 4 | 118 | 0.0339 | 20.00\% | 5.00\% | 23.6 | 5.9 | 17\% | 68\% |
| 59 | 6 | 102 | 0.0588 | 20.00\% | 5.00\% | 20.4 | 5.1 | 29\% | 118\% |
| 60 | 3 | 95 | 0.0316 | 20.00\% | 5.00\% | 19.0 | 4.8 | 16\% | 63\% |
| 61 | 98 | 163 | 0.6012 | 20.00\% | 5.00\% | 32.6 | 8.2 | 301\% | 1202\% |
| 62 | 44 | 1,085 | 0.0406 | 30.00\% | 40.00\% | 325.5 | 434.0 | 14\% | 10\% |
| 63 | 8 | 73 | 0.1096 | 20.00\% | 15.00\% | 14.6 | 11.0 | 55\% | 73\% |
| 64 | 8 | 66 | 0.1212 | 20.00\% | 15.00\% | 13.2 | 9.9 | 61\% | 81\% |
| 65 | 9 | 39 | 0.2308 | 30.00\% | 15.00\% | 11.7 | 5.9 | 77\% | 154\% |
| 66 | 4 | 32 | 0.1250 | 20.00\% | 15.00\% | 6.4 | 4.8 | 63\% | 83\% |
| 67 | 2 | 21 | 0.0952 | 20.00\% | 15.00\% | 4.2 | 3.2 | 48\% | 63\% |
| 68 | 7 | 31 | 0.2258 | 20.00\% | 15.00\% | 6.2 | 4.7 | 113\% | 151\% |
| 69 | 1 | 21 | 0.0476 | 20.00\% | 15.00\% | 4.2 | 3.2 | 24\% | 32\% |
| 70 | 1 | 13 | 0.0769 | 100.00\% | 60.00\% | 13.0 | 7.8 | 8\% | 13\% |
| Subtotal | 234 | 3,401 |  |  |  | 803.0 | 585.3 | 29\% | 40\% |
| Other | 17 | 201 | 0.0846 | 100.00\% | 60.00\% | 201.0 | 120.6 | 8\% | 14\% |
| Total | 251 | 3,602 |  |  |  | 1,004.0 | 705.9 | 25\% | 36\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY TOTAL - MEN AND WOMEN

|  | TABLE 4A |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | Proposed $\text { (3) } \times(6)$ | Expected $(2) /(7)$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 1 | 1 | 1.0000 | 40.00\% | 30.00\% | 0.4 | 0.3 | 250\% | 333\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 1 | 2 | 0.5000 | 40.00\% | 30.00\% | 0.8 | 0.6 | 125\% | 167\% |
| 50 | 0 | 10 | 0.0000 | 40.00\% | 30.00\% | 4.0 | 3.0 | 0\% | 0\% |
| 51 | 1 | 4 | 0.2500 | 40.00\% | 30.00\% | 1.6 | 1.2 | 63\% | 83\% |
| 52 | 0 | 7 | 0.0000 | 40.00\% | 30.00\% | 2.8 | 2.1 | 0\% | 0\% |
| 53 | 3 | 4 | 0.7500 | 40.00\% | 30.00\% | 1.6 | 1.2 | 188\% | 250\% |
| 54 | 7 | 12 | 0.5833 | 36.67\% | 25.83\% | 4.4 | 3.1 | 159\% | 226\% |
| 55 | 49 | 226 | 0.2168 | 31.59\% | 19.49\% | 71.4 | 44.1 | 69\% | 111\% |
| 56 | 15 | 34 | 0.4412 | 31.76\% | 19.71\% | 10.8 | 6.7 | 139\% | 224\% |
| 57 | 33 | 1,747 | 0.0189 | 20.11\% | 5.14\% | 351.4 | 89.9 | 9\% | 37\% |
| 58 | 8 | 203 | 0.0394 | 20.49\% | 5.62\% | 41.6 | 11.4 | 19\% | 70\% |
| 59 | 11 | 190 | 0.0579 | 20.42\% | 5.53\% | 38.8 | 10.5 | 28\% | 105\% |
| 60 | 7 | 174 | 0.0402 | 20.69\% | 5.86\% | 36.0 | 10.2 | 19\% | 69\% |
| 61 | 107 | 241 | 0.4440 | 20.25\% | 5.31\% | 48.8 | 12.8 | 219\% | 836\% |
| 62 | 554 | 3,703 | 0.1496 | 30.28\% | 39.91\% | 1,121.1 | 1,477.8 | 49\% | 37\% |
| 63 | 23 | 178 | 0.1292 | 20.11\% | 15.08\% | 35.8 | 26.9 | 64\% | 86\% |
| 64 | 18 | 163 | 0.1104 | 20.25\% | 15.18\% | 33.0 | 24.8 | 55\% | 73\% |
| 65 | 21 | 114 | 0.1842 | 30.00\% | 15.00\% | 34.2 | 17.1 | 61\% | 123\% |
| 66 | 7 | 87 | 0.0805 | 20.23\% | 15.17\% | 17.6 | 13.2 | 40\% | 53\% |
| 67 | 8 | 57 | 0.1404 | 20.35\% | 15.26\% | 11.6 | 8.7 | 69\% | 92\% |
| 68 | 12 | 67 | 0.1791 | 20.00\% | 15.00\% | 13.4 | 10.1 | 90\% | 119\% |
| 69 | 5 | 43 | 0.1163 | 20.00\% | 15.00\% | 8.6 | 6.5 | 58\% | 78\% |
| 70 | 2 | 33 | 0.0606 | 100.00\% | 61.21\% | 33.0 | 20.2 | 6\% | 10\% |
| Subtotal | 893 | 7,300 |  |  |  | 1,922.7 | 1,802.1 | 46\% | 50\% |
| Other | 45 | 545 | 0.0826 | 100.00\% | 61.21\% | 545.0 | 333.6 | 8\% | 13\% |
| Total | 938 | 7,845 |  |  |  | 2,467.7 | 2,135.7 | 38\% | 44\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY

MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 4B |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2)/(3) } \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 40.00\% | 30.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 40.00\% | 30.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 40.00\% | 30.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 40.00\% | 30.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 40.00\% | 30.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 40.00\% | 30.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 1 | 1 | 1.0000 | 40.00\% | 30.00\% | 0.4 | 0.3 | 250\% | 333\% |
| 47 | 0 | 0 | N/A | 40.00\% | 30.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 40.00\% | 30.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 1 | 2 | 0.5000 | 40.00\% | 30.00\% | 0.8 | 0.6 | 125\% | 167\% |
| 50 | 0 | 10 | 0.0000 | 40.00\% | 30.00\% | 4.0 | 3.0 | 0\% | 0\% |
| 51 | 1 | 4 | 0.2500 | 40.00\% | 30.00\% | 1.6 | 1.2 | 63\% | 83\% |
| 52 | 0 | 7 | 0.0000 | 40.00\% | 30.00\% | 2.8 | 2.1 | 0\% | 0\% |
| 53 | 3 | 4 | 0.7500 | 40.00\% | 30.00\% | 1.6 | 1.2 | 188\% | 250\% |
| 54 | 5 | 10 | 0.5000 | 40.00\% | 30.00\% | 4.0 | 3.0 | 125\% | 167\% |
| 55 | 18 | 131 | 0.1374 | 40.00\% | 30.00\% | 52.4 | 39.3 | 34\% | 46\% |
| 56 | 1 | 20 | 0.0500 | 40.00\% | 30.00\% | 8.0 | 6.0 | 13\% | 17\% |
| 57 | 2 | 10 | 0.2000 | 40.00\% | 30.00\% | 4.0 | 3.0 | 50\% | 67\% |
| 58 | 2 | 5 | 0.4000 | 40.00\% | 30.00\% | 2.0 | 1.5 | 100\% | 133\% |
| 59 | 0 | 4 | 0.0000 | 40.00\% | 30.00\% | 1.6 | 1.2 | 0\% | 0\% |
| 60 | 1 | 6 | 0.1667 | 40.00\% | 30.00\% | 2.4 | 1.8 | 42\% | 56\% |
| 61 | 1 | 3 | 0.3333 | 40.00\% | 30.00\% | 1.2 | 0.9 | 83\% | 111\% |
| 62 | 3 | 34 | 0.0882 | 60.00\% | 30.00\% | 20.4 | 10.2 | 15\% | 29\% |
| 63 | 0 | 1 | 0.0000 | 40.00\% | 30.00\% | 0.4 | 0.3 | 0\% | 0\% |
| 64 | 0 | 2 | 0.0000 | 40.00\% | 30.00\% | 0.8 | 0.6 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 60.00\% | 30.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 0 | 1 | 0.0000 | 40.00\% | 30.00\% | 0.4 | 0.3 | 0\% | 0\% |
| 67 | 1 | 1 | 1.0000 | 40.00\% | 30.00\% | 0.4 | 0.3 | 250\% | 333\% |
| 68 | 0 | 0 | N/A | 40.00\% | 30.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 40.00\% | 30.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 1 | 0.0000 | 100.00\% | 100.00\% | 1.0 | 1.0 | 0\% | 0\% |
| Subtotal | 40 | 257 |  |  |  | 110.2 | 77.8 | 36\% | 51\% |
| Other | 2 | 11 | 0.1818 | 100.00\% | 100.00\% | 11.0 | 11.0 | 18\% | 18\% |
| Total | 42 | 268 |  |  |  | 121.2 | 88.8 | 35\% | 47\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY

MEN AND WOMEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 4C |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 20.00\% | 5.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 20.00\% | 5.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 20.00\% | 5.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 20.00\% | 5.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 20.00\% | 5.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 20.00\% | 5.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 20.00\% | 5.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 20.00\% | 5.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 20.00\% | 5.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 20.00\% | 5.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 20.00\% | 5.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 20.00\% | 5.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 20.00\% | 5.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 20.00\% | 5.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 2 | 2 | 1.0000 | 20.00\% | 5.00\% | 0.4 | 0.1 | 500\% | 2000\% |
| 55 | 31 | 95 | 0.3263 | 20.00\% | 5.00\% | 19.0 | 4.8 | 163\% | 653\% |
| 56 | 14 | 14 | 1.0000 | 20.00\% | 5.00\% | 2.8 | 0.7 | 500\% | 2000\% |
| 57 | 31 | 1,737 | 0.0178 | 20.00\% | 5.00\% | 347.4 | 86.9 | 9\% | 36\% |
| 58 | 6 | 198 | 0.0303 | 20.00\% | 5.00\% | 39.6 | 9.9 | 15\% | 61\% |
| 59 | 11 | 186 | 0.0591 | 20.00\% | 5.00\% | 37.2 | 9.3 | 30\% | 118\% |
| 60 | 6 | 168 | 0.0357 | 20.00\% | 5.00\% | 33.6 | 8.4 | 18\% | 71\% |
| 61 | 106 | 238 | 0.4454 | 20.00\% | 5.00\% | 47.6 | 11.9 | 223\% | 891\% |
| 62 | 551 | 3,669 | 0.1502 | 30.00\% | 40.00\% | 1,100.7 | 1,467.6 | 50\% | 38\% |
| 63 | 23 | 177 | 0.1299 | 20.00\% | 15.00\% | 35.4 | 26.6 | 65\% | 87\% |
| 64 | 18 | 161 | 0.1118 | 20.00\% | 15.00\% | 32.2 | 24.2 | 56\% | 75\% |
| 65 | 21 | 114 | 0.1842 | 30.00\% | 15.00\% | 34.2 | 17.1 | 61\% | 123\% |
| 66 | 7 | 86 | 0.0814 | 20.00\% | 15.00\% | 17.2 | 12.9 | 41\% | 54\% |
| 67 | 7 | 56 | 0.1250 | 20.00\% | 15.00\% | 11.2 | 8.4 | 63\% | 83\% |
| 68 | 12 | 67 | 0.1791 | 20.00\% | 15.00\% | 13.4 | 10.1 | 90\% | 119\% |
| 69 | 5 | 43 | 0.1163 | 20.00\% | 15.00\% | 8.6 | 6.5 | 58\% | 78\% |
| 70 | 2 | 32 | 0.0625 | 100.00\% | 60.00\% | 32.0 | 19.2 | 6\% | 10\% |
| Subtotal | 853 | 7,043 |  |  |  | 1,812.5 | 1,724.3 | 47\% | 49\% |
| Other | 43 | 534 | 0.0805 | 100.00\% | 60.00\% | 534.0 | 320.4 | 8\% | 13\% |
| Total | 896 | 7,577 |  |  |  | 2,346.5 | 2,044.7 | 38\% | 44\% |

## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY <br> TOTAL - MEN AND WOMEN

|  | TABLE 5A |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements <br> Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2)/(3) } \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | Proposed $(3) \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | $\begin{aligned} & \text { Proposed } \\ & (2) /(8) \\ & \hline \end{aligned}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 5 | 0.0000 | 20.00\% | 20.00\% | 1.0 | 1.0 | 0\% | 0\% |
| 52 | 0 | 3 | 0.0000 | 20.00\% | 20.00\% | 0.6 | 0.6 | 0\% | 0\% |
| 53 | 0 | 3 | 0.0000 | 20.00\% | 20.00\% | 0.6 | 0.6 | 0\% | 0\% |
| 54 | 0 | 1 | 0.0000 | 20.00\% | 20.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 55 | 23 | 25 | 0.9200 | 19.60\% | 19.60\% | 4.9 | 4.9 | 469\% | 469\% |
| 56 | 2 | 49 | 0.0408 | 19.49\% | 19.49\% | 9.6 | 9.6 | 21\% | 21\% |
| 57 | 28 | 35 | 0.8000 | 16.29\% | 16.29\% | 5.7 | 5.7 | 491\% | 491\% |
| 58 | 17 | 1,329 | 0.0128 | 15.02\% | 15.02\% | 199.7 | 199.7 | 9\% | 9\% |
| 59 | 6 | 128 | 0.0469 | 15.08\% | 15.08\% | 19.3 | 19.3 | 31\% | 31\% |
| 60 | 6 | 119 | 0.0504 | 15.13\% | 15.13\% | 18.0 | 18.0 | 33\% | 33\% |
| 61 | 6 | 99 | 0.0606 | 15.10\% | 15.10\% | 15.0 | 15.0 | 40\% | 40\% |
| 62 | 281 | 354 | 0.7938 | 25.00\% | 25.00\% | 88.5 | 88.5 | 318\% | 318\% |
| 63 | 27 | 937 | 0.0288 | 15.06\% | 15.06\% | 141.1 | 141.1 | 19\% | 19\% |
| 64 | 11 | 77 | 0.1429 | 15.00\% | 15.00\% | 11.6 | 11.6 | 95\% | 95\% |
| 65 | 8 | 61 | 0.1311 | 25.00\% | 25.00\% | 15.3 | 15.3 | 52\% | 52\% |
| 66 | 8 | 41 | 0.1951 | 15.00\% | 15.00\% | 6.2 | 6.2 | 130\% | 130\% |
| 67 | 5 | 32 | 0.1563 | 15.00\% | 15.00\% | 4.8 | 4.8 | 104\% | 104\% |
| 68 | 3 | 28 | 0.1071 | 15.00\% | 15.00\% | 4.2 | 4.2 | 71\% | 71\% |
| 69 | 5 | 27 | 0.1852 | 15.00\% | 15.00\% | 4.1 | 4.1 | 123\% | 123\% |
| 70 | 3 | 23 | 0.1304 | 100.00\% | 100.00\% | 23.0 | 23.0 | 13\% | 13\% |
| Subtotal | 439 | 3,376 |  |  |  | 573.1 | 573.1 | 77\% | 77\% |
| Other | 5 | 40 | 0.1250 | 100.00\% | 100.00\% | 40.0 | 40.0 | 13\% | 13\% |
| Total | 444 | 3,416 |  |  |  | 613.1 | 613.1 | 72\% | 72\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 5B |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 5 | 0.0000 | 20.00\% | 20.00\% | 1.0 | 1.0 | 0\% | 0\% |
| 52 | 0 | 3 | 0.0000 | 20.00\% | 20.00\% | 0.6 | 0.6 | 0\% | 0\% |
| 53 | 0 | 3 | 0.0000 | 20.00\% | 20.00\% | 0.6 | 0.6 | 0\% | 0\% |
| 54 | 0 | 1 | 0.0000 | 20.00\% | 20.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 55 | 21 | 23 | 0.9130 | 20.00\% | 20.00\% | 4.6 | 4.6 | 457\% | 457\% |
| 56 | 1 | 44 | 0.0227 | 20.00\% | 20.00\% | 8.8 | 8.8 | 11\% | 11\% |
| 57 | 2 | 9 | 0.2222 | 20.00\% | 20.00\% | 1.8 | 1.8 | 111\% | 111\% |
| 58 | 0 | 6 | 0.0000 | 20.00\% | 20.00\% | 1.2 | 1.2 | 0\% | 0\% |
| 59 | 0 | 2 | 0.0000 | 20.00\% | 20.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 60 | 0 | 3 | 0.0000 | 20.00\% | 20.00\% | 0.6 | 0.6 | 0\% | 0\% |
| 61 | 1 | 2 | 0.5000 | 20.00\% | 20.00\% | 0.4 | 0.4 | 250\% | 250\% |
| 62 | 0 | 0 | N/A | 25.00\% | 25.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 63 | 0 | 11 | 0.0000 | 20.00\% | 20.00\% | 2.2 | 2.2 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 0 | 1 | 0.0000 | 25.00\% | 25.00\% | 0.3 | 0.3 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 25 | 113 |  |  |  | 22.7 | 22.7 | 110\% | 110\% |
| Other | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 25 | 113 |  |  |  | 22.7 | 22.7 | 110\% | 110\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY

MEN AND WOMEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 5C |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2)/(3) } \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | Proposed $\text { (3) } \times(6)$ | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 2 | 2 | 1.0000 | 15.00\% | 15.00\% | 0.3 | 0.3 | 667\% | 667\% |
| 56 | 1 | 5 | 0.2000 | 15.00\% | 15.00\% | 0.8 | 0.8 | 133\% | 133\% |
| 57 | 26 | 26 | 1.0000 | 15.00\% | 15.00\% | 3.9 | 3.9 | 667\% | 667\% |
| 58 | 17 | 1,323 | 0.0128 | 15.00\% | 15.00\% | 198.5 | 198.5 | 9\% | 9\% |
| 59 | 6 | 126 | 0.0476 | 15.00\% | 15.00\% | 18.9 | 18.9 | 32\% | 32\% |
| 60 | 6 | 116 | 0.0517 | 15.00\% | 15.00\% | 17.4 | 17.4 | 34\% | 34\% |
| 61 | 5 | 97 | 0.0515 | 15.00\% | 15.00\% | 14.6 | 14.6 | 34\% | 34\% |
| 62 | 281 | 354 | 0.7938 | 25.00\% | 25.00\% | 88.5 | 88.5 | 318\% | 318\% |
| 63 | 27 | 926 | 0.0292 | 15.00\% | 15.00\% | 138.9 | 138.9 | 19\% | 19\% |
| 64 | 11 | 77 | 0.1429 | 15.00\% | 15.00\% | 11.6 | 11.6 | 95\% | 95\% |
| 65 | 8 | 60 | 0.1333 | 25.00\% | 25.00\% | 15.0 | 15.0 | 53\% | 53\% |
| 66 | 8 | 41 | 0.1951 | 15.00\% | 15.00\% | 6.2 | 6.2 | 130\% | 130\% |
| 67 | 5 | 32 | 0.1563 | 15.00\% | 15.00\% | 4.8 | 4.8 | 104\% | 104\% |
| 68 | 3 | 28 | 0.1071 | 15.00\% | 15.00\% | 4.2 | 4.2 | 71\% | 71\% |
| 69 | 5 | 27 | 0.1852 | 15.00\% | 15.00\% | 4.1 | 4.1 | 123\% | 123\% |
| 70 | 3 | 23 | 0.1304 | 100.00\% | 100.00\% | 23.0 | 23.0 | 13\% | 13\% |
| Subtotal | 414 | 3,263 |  |  |  | 550.4 | 550.4 | 75\% | 75\% |
| Other | 5 | 40 | 0.1250 | 100.00\% | 100.00\% | 40.0 | 40.0 | 13\% | 13\% |
| Total | 419 | 3,303 |  |  |  | 590.4 | 590.4 | 71\% | 71\% |

## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY <br> TOTAL - MEN AND WOMEN

|  | TABLE 5A |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) /(3) } \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 10 | 0.0000 | 20.00\% | 20.00\% | 2.0 | 2.0 | 0\% | 0\% |
| 52 | 0 | 3 | 0.0000 | 20.00\% | 20.00\% | 0.6 | 0.6 | 0\% | 0\% |
| 53 | 0 | 6 | 0.0000 | 20.00\% | 20.00\% | 1.2 | 1.2 | 0\% | 0\% |
| 54 | 0 | 4 | 0.0000 | 17.50\% | 17.50\% | 0.7 | 0.7 | 0\% | 0\% |
| 55 | 23 | 26 | 0.8846 | 19.62\% | 19.62\% | 5.1 | 5.1 | 451\% | 451\% |
| 56 | 34 | 207 | 0.1643 | 17.73\% | 17.73\% | 36.7 | 36.7 | 93\% | 93\% |
| 57 | 30 | 42 | 0.7143 | 16.90\% | 16.90\% | 7.1 | 7.1 | 423\% | 423\% |
| 58 | 21 | 1,455 | 0.0144 | 15.03\% | 15.03\% | 218.8 | 218.8 | 10\% | 10\% |
| 59 | 7 | 183 | 0.0383 | 15.11\% | 15.11\% | 27.7 | 27.7 | 25\% | 25\% |
| 60 | 6 | 182 | 0.0330 | 15.16\% | 15.16\% | 27.6 | 27.6 | 22\% | 22\% |
| 61 | 9 | 152 | 0.0592 | 15.07\% | 15.07\% | 22.9 | 22.9 | 39\% | 39\% |
| 62 | 284 | 391 | 0.7263 | 25.00\% | 25.00\% | 97.8 | 97.8 | 291\% | 291\% |
| 63 | 337 | 2,943 | 0.1145 | 15.05\% | 15.05\% | 442.8 | 442.8 | 76\% | 76\% |
| 64 | 20 | 169 | 0.1183 | 15.06\% | 15.06\% | 25.5 | 25.5 | 79\% | 79\% |
| 65 | 19 | 148 | 0.1284 | 25.00\% | 25.00\% | 37.0 | 37.0 | 51\% | 51\% |
| 66 | 19 | 106 | 0.1792 | 15.05\% | 15.05\% | 16.0 | 16.0 | 119\% | 119\% |
| 67 | 14 | 93 | 0.1505 | 15.05\% | 15.05\% | 14.0 | 14.0 | 100\% | 100\% |
| 68 | 8 | 56 | 0.1429 | 15.00\% | 15.00\% | 8.4 | 8.4 | 95\% | 95\% |
| 69 | 10 | 58 | 0.1724 | 15.00\% | 15.00\% | 8.7 | 8.7 | 115\% | 115\% |
| 70 | 4 | 41 | 0.0976 | 100.00\% | 100.00\% | 41.0 | 41.0 | 10\% | 10\% |
| Subtotal | 845 | 6,275 |  |  |  | 1,041.4 | 1,041.4 | 81\% | 81\% |
| Other | 13 | 124 | 0.1048 | 100.00\% | 100.00\% | 124.0 | 124.0 | 10\% | 10\% |
| Total | 858 | 6,399 |  |  |  | 1,165.4 | 1,165.4 | 74\% | 74\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 5B |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements <br> Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2)/(3) } \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ (3) \times(6) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 10 | 0.0000 | 20.00\% | 20.00\% | 2.0 | 2.0 | 0\% | 0\% |
| 52 | 0 | 3 | 0.0000 | 20.00\% | 20.00\% | 0.6 | 0.6 | 0\% | 0\% |
| 53 | 0 | 6 | 0.0000 | 20.00\% | 20.00\% | 1.2 | 1.2 | 0\% | 0\% |
| 54 | 0 | 2 | 0.0000 | 20.00\% | 20.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 55 | 21 | 24 | 0.8750 | 20.00\% | 20.00\% | 4.8 | 4.8 | 438\% | 438\% |
| 56 | 16 | 113 | 0.1416 | 20.00\% | 20.00\% | 22.6 | 22.6 | 71\% | 71\% |
| 57 | 4 | 16 | 0.2500 | 20.00\% | 20.00\% | 3.2 | 3.2 | 125\% | 125\% |
| 58 | 0 | 10 | 0.0000 | 20.00\% | 20.00\% | 2.0 | 2.0 | 0\% | 0\% |
| 59 | 0 | 4 | 0.0000 | 20.00\% | 20.00\% | 0.8 | 0.8 | 0\% | 0\% |
| 60 | 0 | 6 | 0.0000 | 20.00\% | 20.00\% | 1.2 | 1.2 | 0\% | 0\% |
| 61 | 1 | 2 | 0.5000 | 20.00\% | 20.00\% | 0.4 | 0.4 | 250\% | 250\% |
| 62 | 0 | 0 | N/A | 25.00\% | 25.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 63 | 3 | 27 | 0.1111 | 20.00\% | 20.00\% | 5.4 | 5.4 | 56\% | 56\% |
| 64 | 0 | 2 | 0.0000 | 20.00\% | 20.00\% | 0.4 | 0.4 | 0\% | 0\% |
| 65 | 0 | 3 | 0.0000 | 25.00\% | 25.00\% | 0.8 | 0.8 | 0\% | 0\% |
| 66 | 0 | 1 | 0.0000 | 20.00\% | 20.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 67 | 0 | 1 | 0.0000 | 20.00\% | 20.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 1 | 1 | 1.0000 | 100.00\% | 100.00\% | 1.0 | 1.0 | 100\% | 100\% |
| Subtotal | 46 | 231 |  |  |  | 47.2 | 47.2 | 98\% | 98\% |
| Other | 0 | 0 | N/A | 100.00\% | 100.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 46 | 231 |  |  |  | 47.2 | 47.2 | 98\% | 98\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - MANDATED RETIREMENT BENEFIT

|  | TABLE 5C |  |  | $\begin{array}{ll} & \text { 10-YEAR PERIOD ENDING 6/30/2013 } \\ \text { Assumed Probability } \\ \text { Expected Retirements }\end{array}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } /(\mathbf{3}) \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | $\begin{gathered} \text { Proposed } \\ (3) \times(6) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | $\begin{aligned} & \text { Proposed } \\ & (2) /(8) \\ & \hline \end{aligned}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 0 | 2 | 0.0000 | 15.00\% | 15.00\% | 0.3 | 0.3 | 0\% | 0\% |
| 55 | 2 | 2 | 1.0000 | 15.00\% | 15.00\% | 0.3 | 0.3 | 667\% | 667\% |
| 56 | 18 | 94 | 0.1915 | 15.00\% | 15.00\% | 14.1 | 14.1 | 128\% | 128\% |
| 57 | 26 | 26 | 1.0000 | 15.00\% | 15.00\% | 3.9 | 3.9 | 667\% | 667\% |
| 58 | 21 | 1,445 | 0.0145 | 15.00\% | 15.00\% | 216.8 | 216.8 | 10\% | 10\% |
| 59 | 7 | 179 | 0.0391 | 15.00\% | 15.00\% | 26.9 | 26.9 | 26\% | 26\% |
| 60 | 6 | 176 | 0.0341 | 15.00\% | 15.00\% | 26.4 | 26.4 | 23\% | 23\% |
| 61 | 8 | 150 | 0.0533 | 15.00\% | 15.00\% | 22.5 | 22.5 | 36\% | 36\% |
| 62 | 284 | 391 | 0.7263 | 25.00\% | 25.00\% | 97.8 | 97.8 | 291\% | 291\% |
| 63 | 334 | 2,916 | 0.1145 | 15.00\% | 15.00\% | 437.4 | 437.4 | 76\% | 76\% |
| 64 | 20 | 167 | 0.1198 | 15.00\% | 15.00\% | 25.1 | 25.1 | 80\% | 80\% |
| 65 | 19 | 145 | 0.1310 | 25.00\% | 25.00\% | 36.3 | 36.3 | 52\% | 52\% |
| 66 | 19 | 105 | 0.1810 | 15.00\% | 15.00\% | 15.8 | 15.8 | 121\% | 121\% |
| 67 | 14 | 92 | 0.1522 | 15.00\% | 15.00\% | 13.8 | 13.8 | 101\% | 101\% |
| 68 | 8 | 56 | 0.1429 | 15.00\% | 15.00\% | 8.4 | 8.4 | 95\% | 95\% |
| 69 | 10 | 58 | 0.1724 | 15.00\% | 15.00\% | 8.7 | 8.7 | 115\% | 115\% |
| 70 | 3 | 40 | 0.0750 | 100.00\% | 100.00\% | 40.0 | 40.0 | 8\% | 8\% |
| Subtotal | 799 | 6,044 |  |  |  | 994.2 | 994.2 | 80\% | 80\% |
| Other | 13 | 124 | 0.1048 | 100.00\% | 100.00\% | 124.0 | 124.0 | 10\% | 10\% |
| Total | 812 | 6,168 |  |  |  | 1,118.2 | 1,118.2 | 73\% | 73\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY TOTAL - MEN AND WOMEN

|  | TABLE 6A |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed <br> (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 3 | 0.0000 | 15.00\% | 15.00\% | 0.5 | 0.5 | 0\% | 0\% |
| 53 | 0 | 6 | 0.0000 | 15.00\% | 15.00\% | 0.9 | 0.9 | 0\% | 0\% |
| 54 | 0 | 6 | 0.0000 | 15.00\% | 15.00\% | 0.9 | 0.9 | 0\% | 0\% |
| 55 | 0 | 2 | 0.0000 | 15.00\% | 15.00\% | 0.3 | 0.3 | 0\% | 0\% |
| 56 | 6 | 11 | 0.5455 | 15.00\% | 15.00\% | 1.7 | 1.7 | 364\% | 364\% |
| 57 | 16 | 72 | 0.2222 | 13.96\% | 13.96\% | 10.1 | 10.1 | 159\% | 159\% |
| 58 | 13 | 78 | 0.1667 | 13.27\% | 13.27\% | 10.4 | 10.4 | 126\% | 126\% |
| 59 | 41 | 1,226 | 0.0334 | 10.23\% | 10.23\% | 125.4 | 125.4 | 33\% | 33\% |
| 60 | 31 | 1,067 | 0.0291 | 10.15\% | 10.15\% | 108.4 | 108.4 | 29\% | 29\% |
| 61 | 45 | 990 | 0.0455 | 10.14\% | 10.14\% | 100.4 | 100.4 | 45\% | 45\% |
| 62 | 96 | 898 | 0.1069 | 20.12\% | 15.24\% | 180.7 | 136.9 | 53\% | 70\% |
| 63 | 192 | 869 | 0.2209 | 15.04\% | 15.04\% | 130.7 | 130.7 | 147\% | 147\% |
| 64 | 159 | 1,479 | 0.1075 | 15.03\% | 15.03\% | 222.4 | 222.4 | 72\% | 72\% |
| 65 | 181 | 1,258 | 0.1439 | 20.04\% | 15.07\% | 252.1 | 189.6 | 72\% | 95\% |
| 66 | 198 | 994 | 0.1992 | 15.03\% | 15.03\% | 149.4 | 149.4 | 133\% | 133\% |
| 67 | 127 | 772 | 0.1645 | 15.02\% | 15.02\% | 116.0 | 116.0 | 110\% | 110\% |
| 68 | 101 | 635 | 0.1591 | 15.03\% | 15.03\% | 95.5 | 95.5 | 106\% | 106\% |
| 69 | 83 | 552 | 0.1504 | 15.05\% | 15.05\% | 83.1 | 83.1 | 100\% | 100\% |
| 70 | 87 | 456 | 0.1908 | 100.00\% | 25.33\% | 456.0 | 115.5 | 19\% | 75\% |
| Subtotal | 1,376 | 11,374 |  |  |  | 2,044.4 | 1,597.6 | 67\% | 86\% |
| Other | 309 | 1,825 | 0.1693 | 100.00\% | 25.33\% | 1,825.0 | 462.3 | 17\% | 67\% |
| Total | 1,685 | 13,199 |  |  |  | 3,869.4 | 2,059.9 | 44\% | 82\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

| Age | TABLE 6B |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 3 | 0.0000 | 15.00\% | 15.00\% | 0.5 | 0.5 | 0\% | 0\% |
| 53 | 0 | 6 | 0.0000 | 15.00\% | 15.00\% | 0.9 | 0.9 | 0\% | 0\% |
| 54 | 0 | 6 | 0.0000 | 15.00\% | 15.00\% | 0.9 | 0.9 | 0\% | 0\% |
| 55 | 0 | 2 | 0.0000 | 15.00\% | 15.00\% | 0.3 | 0.3 | 0\% | 0\% |
| 56 | 6 | 11 | 0.5455 | 15.00\% | 15.00\% | 1.7 | 1.7 | 364\% | 364\% |
| 57 | 12 | 57 | 0.2105 | 15.00\% | 15.00\% | 8.6 | 8.6 | 140\% | 140\% |
| 58 | 1 | 51 | 0.0196 | 15.00\% | 15.00\% | 7.7 | 7.7 | 13\% | 13\% |
| 59 | 15 | 56 | 0.2679 | 15.00\% | 15.00\% | 8.4 | 8.4 | 179\% | 179\% |
| 60 | 4 | 33 | 0.1212 | 15.00\% | 15.00\% | 5.0 | 5.0 | 81\% | 81\% |
| 61 | 7 | 28 | 0.2500 | 15.00\% | 15.00\% | 4.2 | 4.2 | 167\% | 167\% |
| 62 | 10 | 22 | 0.4545 | 25.00\% | 25.00\% | 5.5 | 5.5 | 182\% | 182\% |
| 63 | 2 | 7 | 0.2857 | 20.00\% | 20.00\% | 1.4 | 1.4 | 143\% | 143\% |
| 64 | 0 | 10 | 0.0000 | 20.00\% | 20.00\% | 2.0 | 2.0 | 0\% | 0\% |
| 65 | 0 | 9 | 0.0000 | 25.00\% | 25.00\% | 2.3 | 2.3 | 0\% | 0\% |
| 66 | 3 | 5 | 0.6000 | 20.00\% | 20.00\% | 1.0 | 1.0 | 300\% | 300\% |
| 67 | 0 | 3 | 0.0000 | 20.00\% | 20.00\% | 0.6 | 0.6 | 0\% | 0\% |
| 68 | 0 | 4 | 0.0000 | 20.00\% | 20.00\% | 0.8 | 0.8 | 0\% | 0\% |
| 69 | 1 | 5 | 0.2000 | 20.00\% | 20.00\% | 1.0 | 1.0 | 100\% | 100\% |
| 70 | 1 | 2 | 0.5000 | 100.00\% | 100.00\% | 2.0 | 2.0 | 50\% | 50\% |
| Subtotal | 62 | 320 |  |  |  | 54.5 | 54.5 | 114\% | 114\% |
| Other | 0 | 4 | 0.0000 | 100.00\% | 100.00\% | 4.0 | 4.0 | 0\% | 0\% |
| Total | 62 | 324 |  |  |  | 58.5 | 58.5 | 106\% | 106\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - MANDATED RETIREMENT BENEFIT

| Age | TABLE 6C |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2013Expected Retirements |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Retirements | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed <br> (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 56 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 57 | 4 | 15 | 0.2667 | 10.00\% | 10.00\% | 1.5 | 1.5 | 267\% | 267\% |
| 58 | 12 | 27 | 0.4444 | 10.00\% | 10.00\% | 2.7 | 2.7 | 444\% | 444\% |
| 59 | 26 | 1,170 | 0.0222 | 10.00\% | 10.00\% | 117.0 | 117.0 | 22\% | 22\% |
| 60 | 27 | 1,034 | 0.0261 | 10.00\% | 10.00\% | 103.4 | 103.4 | 26\% | 26\% |
| 61 | 38 | 962 | 0.0395 | 10.00\% | 10.00\% | 96.2 | 96.2 | 40\% | 40\% |
| 62 | 86 | 876 | 0.0982 | 20.00\% | 15.00\% | 175.2 | 131.4 | 49\% | 65\% |
| 63 | 190 | 862 | 0.2204 | 15.00\% | 15.00\% | 129.3 | 129.3 | 147\% | 147\% |
| 64 | 159 | 1,469 | 0.1082 | 15.00\% | 15.00\% | 220.4 | 220.4 | 72\% | 72\% |
| 65 | 181 | 1,249 | 0.1449 | 20.00\% | 15.00\% | 249.8 | 187.4 | 72\% | 97\% |
| 66 | 195 | 989 | 0.1972 | 15.00\% | 15.00\% | 148.4 | 148.4 | 131\% | 131\% |
| 67 | 127 | 769 | 0.1651 | 15.00\% | 15.00\% | 115.4 | 115.4 | 110\% | 110\% |
| 68 | 101 | 631 | 0.1601 | 15.00\% | 15.00\% | 94.7 | 94.7 | 107\% | 107\% |
| 69 | 82 | 547 | 0.1499 | 15.00\% | 15.00\% | 82.1 | 82.1 | 100\% | 100\% |
| 70 | 86 | 454 | 0.1894 | 100.00\% | 25.00\% | 454.0 | 113.5 | 19\% | 76\% |
| Subtotal | 1,314 | 11,054 |  |  |  | 1,989.9 | 1,543.1 | 66\% | 85\% |
| Other | 309 | 1,821 | 0.1697 | 100.00\% | 25.00\% | 1,821.0 | 455.3 | 17\% | 68\% |
| Total | 1,623 | 12,875 |  |  |  | 3,810.9 | 1,998.4 | 43\% | 81\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY TOTAL - MEN AND WOMEN

|  | TABLE 6A |  |  | Assumed | bability | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 1 | 7 | 0.1429 | 15.00\% | 15.00\% | 1.1 | 1.1 | 95\% | 95\% |
| 53 | 3 | 11 | 0.2727 | 15.00\% | 15.00\% | 1.7 | 1.7 | 182\% | 182\% |
| 54 | 0 | 9 | 0.0000 | 15.00\% | 15.00\% | 1.4 | 1.4 | 0\% | 0\% |
| 55 | 1 | 8 | 0.1250 | 14.38\% | 14.38\% | 1.2 | 1.2 | 87\% | 87\% |
| 56 | 6 | 13 | 0.4615 | 14.62\% | 14.62\% | 1.9 | 1.9 | 316\% | 316\% |
| 57 | 39 | 207 | 0.1884 | 12.46\% | 12.46\% | 25.8 | 25.8 | 151\% | 151\% |
| 58 | 33 | 178 | 0.1854 | 12.16\% | 12.16\% | 21.7 | 21.7 | 152\% | 152\% |
| 59 | 55 | 1,392 | 0.0395 | 10.26\% | 10.26\% | 142.9 | 142.9 | 39\% | 39\% |
| 60 | 55 | 1,234 | 0.0446 | 10.19\% | 10.19\% | 125.8 | 125.8 | 44\% | 44\% |
| 61 | 77 | 1,155 | 0.0667 | 10.19\% | 10.19\% | 117.7 | 117.7 | 65\% | 65\% |
| 62 | 122 | 1,028 | 0.1187 | 20.16\% | 15.31\% | 207.2 | 157.4 | 59\% | 78\% |
| 63 | 216 | 987 | 0.2188 | 15.08\% | 15.08\% | 148.9 | 148.9 | 145\% | 145\% |
| 64 | 413 | 3,118 | 0.1325 | 15.06\% | 15.06\% | 469.5 | 469.5 | 88\% | 88\% |
| 65 | 461 | 2,691 | 0.1713 | 20.04\% | 15.09\% | 539.4 | 406.0 | 85\% | 114\% |
| 66 | 423 | 2,124 | 0.1992 | 15.03\% | 15.03\% | 319.3 | 319.3 | 132\% | 132\% |
| 67 | 275 | 1,674 | 0.1643 | 15.04\% | 15.04\% | 251.7 | 251.7 | 109\% | 109\% |
| 68 | 221 | 1,392 | 0.1588 | 15.05\% | 15.05\% | 209.5 | 209.5 | 105\% | 105\% |
| 69 | 196 | 1,165 | 0.1682 | 15.04\% | 15.04\% | 175.3 | 175.3 | 112\% | 112\% |
| 70 | 181 | 999 | 0.1812 | 100.00\% | 25.30\% | 999.0 | 252.8 | 18\% | 72\% |
| Subtotal | 2,778 | 19,392 |  |  |  | 3,760.5 | 2,831.1 | 74\% | 98\% |
| Other | 757 | 4,256 | 0.1779 | 100.00\% | 25.30\% | 4,256.0 | 1,076.8 | 18\% | 70\% |
| Total | 3,535 | 23,648 |  |  |  | 8,016.5 | 3,907.8 | 44\% | 90\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - ELECTED RETIREMENT BENEFIT

|  | TABLE 6B |  |  | Assumed | bability | 10-YEAR PERIOD ENDING 6/30/2013Expected Retirements Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 1 | 7 | 0.1429 | 15.00\% | 15.00\% | 1.1 | 1.1 | 95\% | 95\% |
| 53 | 3 | 11 | 0.2727 | 15.00\% | 15.00\% | 1.7 | 1.7 | 182\% | 182\% |
| 54 | 0 | 9 | 0.0000 | 15.00\% | 15.00\% | 1.4 | 1.4 | 0\% | 0\% |
| 55 | 1 | 7 | 0.1429 | 15.00\% | 15.00\% | 1.1 | 1.1 | 95\% | 95\% |
| 56 | 6 | 12 | 0.5000 | 15.00\% | 15.00\% | 1.8 | 1.8 | 333\% | 333\% |
| 57 | 21 | 102 | 0.2059 | 15.00\% | 15.00\% | 15.3 | 15.3 | 137\% | 137\% |
| 58 | 5 | 77 | 0.0649 | 15.00\% | 15.00\% | 11.6 | 11.6 | 43\% | 43\% |
| 59 | 17 | 73 | 0.2329 | 15.00\% | 15.00\% | 11.0 | 11.0 | 155\% | 155\% |
| 60 | 6 | 47 | 0.1277 | 15.00\% | 15.00\% | 7.1 | 7.1 | 85\% | 85\% |
| 61 | 11 | 44 | 0.2500 | 15.00\% | 15.00\% | 6.6 | 6.6 | 167\% | 167\% |
| 62 | 13 | 32 | 0.4063 | 25.00\% | 25.00\% | 8.0 | 8.0 | 163\% | 163\% |
| 63 | 4 | 16 | 0.2500 | 20.00\% | 20.00\% | 3.2 | 3.2 | 125\% | 125\% |
| 64 | 2 | 36 | 0.0556 | 20.00\% | 20.00\% | 7.2 | 7.2 | 28\% | 28\% |
| 65 | 4 | 23 | 0.1739 | 25.00\% | 25.00\% | 5.8 | 5.8 | 70\% | 70\% |
| 66 | 4 | 14 | 0.2857 | 20.00\% | 20.00\% | 2.8 | 2.8 | 143\% | 143\% |
| 67 | 0 | 12 | 0.0000 | 20.00\% | 20.00\% | 2.4 | 2.4 | 0\% | 0\% |
| 68 | 2 | 14 | 0.1429 | 20.00\% | 20.00\% | 2.8 | 2.8 | 71\% | 71\% |
| 69 | 2 | 10 | 0.2000 | 20.00\% | 20.00\% | 2.0 | 2.0 | 100\% | 100\% |
| 70 | 2 | 4 | 0.5000 | 100.00\% | 100.00\% | 4.0 | 4.0 | 50\% | 50\% |
| Subtotal | 104 | 550 |  |  |  | 96.5 | 96.5 | 108\% | 108\% |
| Other | 0 | 7 | 0.0000 | 100.00\% | 100.00\% | 7.0 | 7.0 | 0\% | 0\% |
| Total | 104 | 557 |  |  |  | 103.5 | 103.5 | 100\% | 100\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY MEN AND WOMEN - MANDATED RETIREMENT BENEFIT

| Age | TABLE 6C |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements <br> Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 0 | 1 | 0.0000 | 10.00\% | 10.00\% | 0.1 | 0.1 | 0\% | 0\% |
| 56 | 0 | 1 | 0.0000 | 10.00\% | 10.00\% | 0.1 | 0.1 | 0\% | 0\% |
| 57 | 18 | 105 | 0.1714 | 10.00\% | 10.00\% | 10.5 | 10.5 | 171\% | 171\% |
| 58 | 28 | 101 | 0.2772 | 10.00\% | 10.00\% | 10.1 | 10.1 | 277\% | 277\% |
| 59 | 38 | 1,319 | 0.0288 | 10.00\% | 10.00\% | 131.9 | 131.9 | 29\% | 29\% |
| 60 | 49 | 1,187 | 0.0413 | 10.00\% | 10.00\% | 118.7 | 118.7 | 41\% | 41\% |
| 61 | 66 | 1,111 | 0.0594 | 10.00\% | 10.00\% | 111.1 | 111.1 | 59\% | 59\% |
| 62 | 109 | 996 | 0.1094 | 20.00\% | 15.00\% | 199.2 | 149.4 | 55\% | 73\% |
| 63 | 212 | 971 | 0.2183 | 15.00\% | 15.00\% | 145.7 | 145.7 | 146\% | 146\% |
| 64 | 411 | 3,082 | 0.1334 | 15.00\% | 15.00\% | 462.3 | 462.3 | 89\% | 89\% |
| 65 | 457 | 2,668 | 0.1713 | 20.00\% | 15.00\% | 533.6 | 400.2 | 86\% | 114\% |
| 66 | 419 | 2,110 | 0.1986 | 15.00\% | 15.00\% | 316.5 | 316.5 | 132\% | 132\% |
| 67 | 275 | 1,662 | 0.1655 | 15.00\% | 15.00\% | 249.3 | 249.3 | 110\% | 110\% |
| 68 | 219 | 1,378 | 0.1589 | 15.00\% | 15.00\% | 206.7 | 206.7 | 106\% | 106\% |
| 69 | 194 | 1,155 | 0.1680 | 15.00\% | 15.00\% | 173.3 | 173.3 | 112\% | 112\% |
| 70 | 179 | 995 | 0.1799 | 100.00\% | 25.00\% | 995.0 | 248.8 | 18\% | 72\% |
| Subtotal | 2,674 | 18,842 |  |  |  | 3,664.0 | 2,734.6 | 73\% | 98\% |
| Other | 757 | 4,249 | 0.1782 | 100.00\% | 25.00\% | 4,249.0 | 1,062.3 | 18\% | 71\% |
| Total | 3,431 | 23,091 |  |  |  | 7,913.0 | 3,796.8 | 43\% | 90\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM RETIREMENT EXPERIENCE OF ACTIVE MEMBERS WITH UNREDUCED SERVICE TOTAL - MEN AND WOMEN

| Plan <br> Year | TABLE 6D |  |  | 10-YEAR PER | Retirement Rate | $\begin{aligned} & 013 \\ & \text { Rate } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending June 30, | Life Years Exposed | Actual Retirements | Expected Retirements | Actual / Expected | Actual $(3) /(2)$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 2,539 | 500 | 958.4 | 52\% | 19.69\% | 37.75\% |
| 2005 | 2,524 | 447 | 943.7 | 47\% | 17.71\% | 37.39\% |
| 2006 | 3,081 | 464 | 1,094.2 | 42\% | 15.06\% | 35.51\% |
| 2007 | 2,952 | 599 | 1,020.3 | 59\% | 20.29\% | 34.56\% |
| 2008 | 3,079 | 423 | 1,017.7 | 42\% | 13.74\% | 33.05\% |
| 2009 | 3,380 | 502 | 1,086.1 | 46\% | 14.85\% | 32.13\% |
| 2010 | 4,678 | 454 | 1,293.4 | 35\% | 9.71\% | 27.65\% |
| 2011 | 5,099 | 720 | 1,400.9 | 51\% | 14.12\% | 27.47\% |
| 2012 | 5,302 | 653 | 1,423.1 | 46\% | 12.32\% | 26.84\% |
| 2013 | 5,258 | 569 | 1,452.9 | 39\% | 10.82\% | 27.63\% |
| Total | 37,892 | 5,331 | 11,690.5 | 46\% | 14.07\% | 30.85\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM
RETIREMENT EXPERIENCE OF ACTIVE MEMBERS WITH REDUCED SERVICE
TOTAL - MEN AND WOMEN

| Age | TABLE 7A |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013$\qquad$ Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Retirements | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2)/(3) } \end{aligned}$ | Expected | Proposed | Expected <br> (3) $\times$ (5) | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 4 | 4 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 3 | 3 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 2 | 2 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 13 | 13 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 75 | 1,198 | 0.0626 | 2.00\% | 4.00\% | 24.0 | 47.9 | 313\% | 157\% |
| 56 | 54 | 1,238 | 0.0436 | 2.00\% | 4.00\% | 24.8 | 49.5 | 218\% | 109\% |
| 57 | 64 | 1,304 | 0.0491 | 2.00\% | 4.00\% | 26.1 | 52.2 | 245\% | 123\% |
| 58 | 72 | 1,321 | 0.0545 | 2.00\% | 4.00\% | 26.4 | 52.8 | 273\% | 136\% |
| 59 | 70 | 1,310 | 0.0534 | 3.00\% | 4.00\% | 39.3 | 52.4 | 178\% | 134\% |
| 60 | 91 | 1,320 | 0.0689 | 4.00\% | 4.50\% | 52.8 | 59.4 | 172\% | 153\% |
| 61 | 50 | 1,201 | 0.0416 | 5.00\% | 5.00\% | 60.1 | 60.1 | 83\% | 83\% |
| 62 | 29 | 29 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 63 | 31 | 31 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 64 | 18 | 18 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 25 | 25 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 15 | 15 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 20 | 20 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 3 | 3 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 6 | 6 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 2 | 2 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 647 | 9,063 |  |  |  | 253.4 | 374.3 | 255\% | 173\% |
| Other | 16 | 16 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 663 | 9,079 |  |  |  | 253.4 | 374.3 | 262\% | 177\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM RETIREMENT EXPERIENCE OF ACTIVE MEMBERS WITH REDUCED SERVICE

TOTAL - MEN AND WOMEN

| Age | TABLE 7A |  |  | Assumed Probability $\begin{gathered}\text { 10-YEAR PERIOD ENDING 6/30/2013 } \\ \text { Expected Retirements }\end{gathered}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Retirements | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 1 | 1 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 1 | 1 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 46 | 1 | 1 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 47 | 1 | 1 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 48 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 49 | 1 | 1 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 50 | 7 | 7 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 51 | 6 | 6 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 52 | 1 | 1 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 53 | 7 | 7 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 54 | 69 | 69 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 55 | 217 | 3,713 | 0.0584 | 2.00\% | 4.00\% | 74.3 | 148.5 | 292\% | 146\% |
| 56 | 230 | 3,862 | 0.0596 | 2.00\% | 4.00\% | 77.2 | 154.5 | 298\% | 149\% |
| 57 | 250 | 4,745 | 0.0527 | 2.00\% | 4.00\% | 94.9 | 189.8 | 263\% | 132\% |
| 58 | 226 | 4,608 | 0.0490 | 2.00\% | 4.00\% | 92.2 | 184.3 | 245\% | 123\% |
| 59 | 274 | 4,679 | 0.0586 | 3.00\% | 4.00\% | 140.4 | 187.2 | 195\% | 146\% |
| 60 | 279 | 4,453 | 0.0627 | 4.00\% | 4.50\% | 178.1 | 200.4 | 157\% | 139\% |
| 61 | 396 | 4,173 | 0.0949 | 5.00\% | 5.00\% | 208.7 | 208.7 | 190\% | 190\% |
| 62 | 98 | 98 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 63 | 42 | 42 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 64 | 33 | 33 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 65 | 37 | 37 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 66 | 29 | 29 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 67 | 37 | 37 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 68 | 13 | 13 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 13 | 13 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 10 | 10 | 1.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Subtotal | 2,279 | 30,640 |  |  |  | 865.7 | 1,273.3 | 263\% | 179\% |
| Other | 66 | 66 | 1.0000 | 100.00\% | 0.00\% | 66.0 | 0.0 | 100\% | 0\% |
| Total | 2,345 | 30,706 |  |  |  | 931.7 | 1,273.3 | 252\% | 184\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM RETIREMENT EXPERIENCE OF ACTIVE MEMBERS WITH REDUCED SERVICE TOTAL - MEN AND WOMEN

| Plan Year | TABLE 7B |  | 10-YEAR PERIOD ENDING 6/30/2013 <br> Retirement Rate |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending June 30, | Life Years Exposed | Actual <br> Retirements | Expected Retirements | Actual / Expected | $\begin{aligned} & \text { Actual } \\ & \text { (3) / (2) } \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 3,516 | 265 | 96.8 | 274\% | 7.54\% | 2.75\% |
| 2005 | 3,638 | 260 | 98.3 | 264\% | 7.15\% | 2.70\% |
| 2006 | 3,869 | 298 | 101.4 | 294\% | 7.70\% | 2.62\% |
| 2007 | 3,692 | 381 | 97.2 | 392\% | 10.32\% | 2.63\% |
| 2008 | 3,470 | 245 | 92.9 | 264\% | 7.06\% | 2.68\% |
| 2009 | 3,442 | 233 | 92.6 | 252\% | 6.77\% | 2.69\% |
| 2010 | 2,398 | 208 | 66.0 | 315\% | 8.67\% | 2.75\% |
| 2011 | 2,266 | 201 | 62.9 | 320\% | 8.87\% | 2.78\% |
| 2012 | 2,083 | 150 | 58.6 | 256\% | 7.20\% | 2.81\% |
| 2013 | 2,332 | 104 | 65.5 | 159\% | 4.46\% | 2.81\% |
| Total | 30,706 | 2,345 | 832.3 | 282\% | 7.64\% | 2.71\% |

## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM

 ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERSMEN

| Age | TABLE 8A |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/ Expected |  |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed <br> (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 16 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 38 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 61 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 89 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 120 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 121 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 26 | 0 | 136 | 0.00000 | 0.044\% | 0.044\% | 0.1 | 0.1 | 0\% | 0\% |
| 27 | 0 | 162 | 0.00000 | 0.048\% | 0.048\% | 0.1 | 0.1 | 0\% | 0\% |
| 28 | 0 | 254 | 0.00000 | 0.052\% | 0.052\% | 0.1 | 0.1 | 0\% | 0\% |
| 29 | 0 | 260 | 0.00000 | 0.056\% | 0.056\% | 0.1 | 0.1 | 0\% | 0\% |
| 30 | 0 | 298 | 0.00000 | 0.060\% | 0.060\% | 0.2 | 0.2 | 0\% | 0\% |
| 31 | 1 | 326 | 0.00307 | 0.064\% | 0.064\% | 0.2 | 0.2 | 479\% | 479\% |
| 32 | 0 | 300 | 0.00000 | 0.068\% | 0.068\% | 0.2 | 0.2 | 0\% | 0\% |
| 33 | 0 | 334 | 0.00000 | 0.072\% | 0.072\% | 0.2 | 0.2 | 0\% | 0\% |
| 34 | 0 | 386 | 0.00000 | 0.076\% | 0.076\% | 0.3 | 0.3 | 0\% | 0\% |
| 35 | 0 | 410 | 0.00000 | 0.080\% | 0.080\% | 0.3 | 0.3 | 0\% | 0\% |
| 36 | 0 | 465 | 0.00000 | 0.084\% | 0.084\% | 0.4 | 0.4 | 0\% | 0\% |
| 37 | 0 | 475 | 0.00000 | 0.088\% | 0.088\% | 0.4 | 0.4 | 0\% | 0\% |
| 38 | 0 | 472 | 0.00000 | 0.092\% | 0.092\% | 0.4 | 0.4 | 0\% | 0\% |
| 39 | 0 | 500 | 0.00000 | 0.096\% | 0.096\% | 0.5 | 0.5 | 0\% | 0\% |
| 40 | 0 | 465 | 0.00000 | 0.100\% | 0.100\% | 0.5 | 0.5 | 0\% | 0\% |
| 41 | 0 | 520 | 0.00000 | 0.110\% | 0.110\% | 0.6 | 0.6 | 0\% | 0\% |
| 42 | 1 | 581 | 0.00172 | 0.120\% | 0.120\% | 0.7 | 0.7 | 143\% | 143\% |
| 43 | 1 | 586 | 0.00171 | 0.130\% | 0.130\% | 0.8 | 0.8 | 131\% | 131\% |
| 44 | 0 | 624 | 0.00000 | 0.140\% | 0.140\% | 0.9 | 0.9 | 0\% | 0\% |
| 45 | 0 | 639 | 0.00000 | 0.150\% | 0.150\% | 1.0 | 1.0 | 0\% | 0\% |
| 46 | 1 | 651 | 0.00154 | 0.160\% | 0.160\% | 1.0 | 1.0 | 96\% | 96\% |
| 47 | 2 | 677 | 0.00295 | 0.170\% | 0.170\% | 1.2 | 1.2 | 174\% | 174\% |
| 48 | 3 | 709 | 0.00423 | 0.180\% | 0.180\% | 1.3 | 1.3 | 235\% | 235\% |
| 49 | 0 | 732 | 0.00000 | 0.190\% | 0.190\% | 1.4 | 1.4 | 0\% | 0\% |
| 50 | 0 | 751 | 0.00000 | 0.200\% | 0.200\% | 1.5 | 1.5 | 0\% | 0\% |
| 51 | 0 | 789 | 0.00000 | 0.220\% | 0.220\% | 1.7 | 1.7 | 0\% | 0\% |
| 52 | 2 | 797 | 0.00251 | 0.240\% | 0.240\% | 1.9 | 1.9 | 105\% | 105\% |
| 53 | 1 | 789 | 0.00127 | 0.260\% | 0.260\% | 2.1 | 2.1 | 49\% | 49\% |
| 54 | 3 | 761 | 0.00394 | 0.280\% | 0.280\% | 2.1 | 2.1 | 141\% | 141\% |
| 55 | 2 | 738 | 0.00271 | 0.300\% | 0.300\% | 2.2 | 2.2 | 90\% | 90\% |
| 56 | 1 | 719 | 0.00139 | 0.320\% | 0.320\% | 2.3 | 2.3 | 43\% | 43\% |
| 57 | 2 | 695 | 0.00288 | 0.340\% | 0.340\% | 2.4 | 2.4 | 85\% | 85\% |
| 58 | 1 | 662 | 0.00151 | 0.360\% | 0.360\% | 2.4 | 2.4 | 42\% | 42\% |
| 59 | 0 | 622 | 0.00000 | 0.380\% | 0.380\% | 2.4 | 2.4 | 0\% | 0\% |
| 60 | 0 | 552 | 0.00000 | 0.400\% | 0.400\% | 2.2 | 2.2 | 0\% | 0\% |
| 61 | 2 | 533 | 0.00375 | 0.420\% | 0.420\% | 2.2 | 2.2 | 89\% | 89\% |
| 62 | 2 | 464 | 0.00431 | 0.440\% | 0.440\% | 2.0 | 2.0 | 98\% | 98\% |
| 63 | 1 | 388 | 0.00258 | 0.460\% | 0.460\% | 1.8 | 1.8 | 56\% | 56\% |
| 64 | 2 | 318 | 0.00629 | 0.480\% | 0.480\% | 1.5 | 1.5 | 131\% | 131\% |
| 65 | 0 | 252 | 0.00000 | 0.500\% | 0.500\% | 1.3 | 1.3 | 0\% | 0\% |
| 66 | 1 | 220 | 0.00455 | 0.540\% | 0.540\% | 1.2 | 1.2 | 84\% | 84\% |
| 67 | 0 | 175 | 0.00000 | 0.580\% | 0.580\% | 1.0 | 1.0 | 0\% | 0\% |
| 68 | 0 | 133 | 0.00000 | 0.620\% | 0.620\% | 0.8 | 0.8 | 0\% | 0\% |
| 69 | 0 | 126 | 0.00000 | 0.660\% | 0.660\% | 0.8 | 0.8 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0.0 | 0.0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0.0 | 0.0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0.0 | 0.0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0.0 | 0.0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0.0 | 0.0 | 0\% | 0\% |
| Other | 0 | 3 | 0.00000 | 0.000\% | 0.000\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 29 | 21,894 |  |  |  | 48.8 | 48.8 | 59\% | 59\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

| Age | TABLE 8B |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/ Expected |  |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 16 | 0.00000 | 0.030\% | 0.030\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 29 | 0.00000 | 0.030\% | 0.030\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 63 | 0.00000 | 0.030\% | 0.030\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 102 | 0.00000 | 0.030\% | 0.030\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 151 | 0.00000 | 0.030\% | 0.030\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 208 | 0.00000 | 0.030\% | 0.030\% | 0.1 | 0.1 | 0\% | 0\% |
| 26 | 0 | 279 | 0.00000 | 0.032\% | 0.032\% | 0.1 | 0.1 | 0\% | 0\% |
| 27 | 0 | 349 | 0.00000 | 0.034\% | 0.034\% | 0.1 | 0.1 | 0\% | 0\% |
| 28 | 0 | 436 | 0.00000 | 0.036\% | 0.036\% | 0.2 | 0.2 | 0\% | 0\% |
| 29 | 0 | 544 | 0.00000 | 0.038\% | 0.038\% | 0.2 | 0.2 | 0\% | 0\% |
| 30 | 0 | 617 | 0.00000 | 0.040\% | 0.040\% | 0.2 | 0.2 | 0\% | 0\% |
| 31 | 0 | 647 | 0.00000 | 0.042\% | 0.042\% | 0.3 | 0.3 | 0\% | 0\% |
| 32 | 0 | 704 | 0.00000 | 0.044\% | 0.044\% | 0.3 | 0.3 | 0\% | 0\% |
| 33 | 1 | 757 | 0.00132 | 0.046\% | 0.046\% | 0.3 | 0.3 | 287\% | 287\% |
| 34 | 0 | 838 | 0.00000 | 0.048\% | 0.048\% | 0.4 | 0.4 | 0\% | 0\% |
| 35 | 0 | 904 | 0.00000 | 0.050\% | 0.050\% | 0.5 | 0.5 | 0\% | 0\% |
| 36 | 0 | 902 | 0.00000 | 0.052\% | 0.052\% | 0.5 | 0.5 | 0\% | 0\% |
| 37 | 2 | 945 | 0.00212 | 0.054\% | 0.054\% | 0.5 | 0.5 | 392\% | 392\% |
| 38 | 0 | 1,037 | 0.00000 | 0.056\% | 0.056\% | 0.6 | 0.6 | 0\% | 0\% |
| 39 | 0 | 1,139 | 0.00000 | 0.058\% | 0.058\% | 0.7 | 0.7 | 0\% | 0\% |
| 40 | 0 | 1,213 | 0.00000 | 0.060\% | 0.060\% | 0.7 | 0.7 | 0\% | 0\% |
| 41 | 0 | 1,290 | 0.00000 | 0.068\% | 0.068\% | 0.9 | 0.9 | 0\% | 0\% |
| 42 | 0 | 1,384 | 0.00000 | 0.076\% | 0.076\% | 1.1 | 1.1 | 0\% | 0\% |
| 43 | 0 | 1,508 | 0.00000 | 0.084\% | 0.084\% | 1.3 | 1.3 | 0\% | 0\% |
| 44 | 0 | 1,766 | 0.00000 | 0.092\% | 0.092\% | 1.6 | 1.6 | 0\% | 0\% |
| 45 | 0 | 2,002 | 0.00000 | 0.100\% | 0.100\% | 2.0 | 2.0 | 0\% | 0\% |
| 46 | 1 | 2,162 | 0.00046 | 0.110\% | 0.110\% | 2.4 | 2.4 | 42\% | 42\% |
| 47 | 1 | 2,409 | 0.00042 | 0.120\% | 0.120\% | 2.9 | 2.9 | 35\% | 35\% |
| 48 | 1 | 2,419 | 0.00041 | 0.130\% | 0.130\% | 3.1 | 3.1 | 32\% | 32\% |
| 49 | 1 | 2,566 | 0.00039 | 0.140\% | 0.140\% | 3.6 | 3.6 | 28\% | 28\% |
| 50 | 1 | 2,676 | 0.00037 | 0.150\% | 0.150\% | 4.0 | 4.0 | 25\% | 25\% |
| 51 | 2 | 2,801 | 0.00071 | 0.160\% | 0.160\% | 4.5 | 4.5 | 45\% | 45\% |
| 52 | 0 | 2,935 | 0.00000 | 0.170\% | 0.170\% | 5.0 | 5.0 | 0\% | 0\% |
| 53 | 3 | 3,034 | 0.00099 | 0.180\% | 0.180\% | 5.5 | 5.5 | 55\% | 55\% |
| 54 | 3 | 3,049 | 0.00098 | 0.190\% | 0.190\% | 5.8 | 5.8 | 52\% | 52\% |
| 55 | 1 | 3,024 | 0.00033 | 0.200\% | 0.200\% | 6.0 | 6.0 | 17\% | 17\% |
| 56 | 0 | 2,978 | 0.00000 | 0.210\% | 0.210\% | 6.3 | 6.3 | 0\% | 0\% |
| 57 | 0 | 2,913 | 0.00000 | 0.220\% | 0.220\% | 6.4 | 6.4 | 0\% | 0\% |
| 58 | 2 | 2,784 | 0.00072 | 0.230\% | 0.230\% | 6.4 | 6.4 | 31\% | 31\% |
| 59 | 7 | 2,664 | 0.00263 | 0.240\% | 0.240\% | 6.4 | 6.4 | 109\% | 109\% |
| 60 | 5 | 2,499 | 0.00200 | 0.250\% | 0.250\% | 6.2 | 6.2 | 80\% | 80\% |
| 61 | 0 | 2,320 | 0.00000 | 0.260\% | 0.260\% | 6.0 | 6.0 | 0\% | 0\% |
| 62 | 1 | 2,228 | 0.00045 | 0.270\% | 0.270\% | 6.0 | 6.0 | 17\% | 17\% |
| 63 | 4 | 1,781 | 0.00225 | 0.280\% | 0.280\% | 5.0 | 5.0 | 80\% | 80\% |
| 64 | 2 | 1,510 | 0.00132 | 0.290\% | 0.290\% | 4.4 | 4.4 | 46\% | 46\% |
| 65 | 1 | 1,279 | 0.00078 | 0.300\% | 0.300\% | 3.8 | 3.8 | 26\% | 26\% |
| 66 | 3 | 1,003 | 0.00299 | 0.320\% | 0.320\% | 3.2 | 3.2 | 93\% | 93\% |
| 67 | 2 | 780 | 0.00256 | 0.340\% | 0.340\% | 2.7 | 2.7 | 75\% | 75\% |
| 68 | 3 | 638 | 0.00470 | 0.360\% | 0.360\% | 2.3 | 2.3 | 131\% | 131\% |
| 69 | 2 | 538 | 0.00372 | 0.380\% | 0.380\% | 2.0 | 2.0 | 98\% | 98\% |
| 70 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0.0 | 0.0 | 0\% | 0\% |
| 71 | 1 | 0 | N/A | 0.000\% | 0.000\% | 0.0 | 0.0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0.0 | 0.0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0.0 | 0.0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0.0 | 0.0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.000\% | 0.000\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 50 | 72,820 |  |  |  | 122.5 | 122.5 | 41\% | 41\% |

## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM

 ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN| Age | TABLE 8A GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/ Expected |  |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 324 | 0.00000 | 0.040\% | 0.040\% | 0.1 | 0.1 | 0\% | 0\% |
| 25-29 | 0 | 933 | 0.00000 | 0.050\% | 0.050\% | 0.5 | 0.5 | 0\% | 0\% |
| 30-34 | 1 | 1,644 | 0.00061 | 0.068\% | 0.068\% | 1.1 | 1.1 | 89\% | 89\% |
| 35-39 | 0 | 2,322 | 0.00000 | 0.088\% | 0.088\% | 2.1 | 2.1 | 0\% | 0\% |
| 40-44 | 2 | 2,776 | 0.00072 | 0.121\% | 0.121\% | 3.4 | 3.4 | 59\% | 59\% |
| 45-49 | 6 | 3,408 | 0.00176 | 0.171\% | 0.171\% | 5.8 | 5.8 | 103\% | 103\% |
| 50-54 | 6 | 3,887 | 0.00154 | 0.240\% | 0.240\% | 9.3 | 9.3 | 64\% | 64\% |
| 55-59 | 6 | 3,436 | 0.00175 | 0.338\% | 0.338\% | 11.6 | 11.6 | 52\% | 52\% |
| 60-64 | 7 | 2,255 | 0.00310 | 0.435\% | 0.435\% | 9.8 | 9.8 | 71\% | 71\% |
| 65-69 | 1 | 906 | 0.00110 | 0.565\% | 0.565\% | 5.1 | 5.1 | 20\% | 20\% |
| 70-74 | 0 | 0 | N/A | 0.000\% |  | 0.0 | 0.0 | 0\% | 0\% |
| Other | 0 | 3 | 0.00000 | 0.000\% | 0.000\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 29 | 21,894 |  |  |  | 48.8 | 48.8 | 59\% | 59\% |

## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM

## ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS

WOMEN

| Age | TABLE 8B GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/ Expected |  |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 361 | 0.00000 | 0.030\% | 0.030\% | 0.1 | 0.1 | 0\% | 0\% |
| 25-29 | 0 | 1,816 | 0.00000 | 0.035\% | 0.035\% | 0.6 | 0.6 | 0\% | 0\% |
| 30-34 | 1 | 3,563 | 0.00028 | 0.044\% | 0.044\% | 1.6 | 1.6 | 63\% | 63\% |
| 35-39 | 2 | 4,927 | 0.00041 | 0.054\% | 0.054\% | 2.7 | 2.7 | 75\% | 75\% |
| 40-44 | 0 | 7,161 | 0.00000 | 0.077\% | 0.077\% | 5.5 | 5.5 | 0\% | 0\% |
| 45-49 | 4 | 11,558 | 0.00035 | 0.121\% | 0.121\% | 14.0 | 14.0 | 29\% | 29\% |
| 50-54 | 9 | 14,495 | 0.00062 | 0.171\% | 0.171\% | 24.7 | 24.7 | 36\% | 36\% |
| 55-59 | 10 | 14,363 | 0.00070 | 0.219\% | 0.219\% | 31.5 | 31.5 | 32\% | 32\% |
| 60-64 | 12 | 10,338 | 0.00116 | 0.268\% | 0.268\% | 27.7 | 27.7 | 43\% | 43\% |
| 65-69 | 11 | 4,238 | 0.00260 | 0.331\% | 0.331\% | 14.0 | 14.0 | 78\% | 78\% |
| 70-74 | 1 | 0 | N/A | 0.000\% |  | 0.0 | 0.0 | 0\% | 0\% |
| Other | 0 | 0 | N/A | 0.000\% |  | 0.0 | 0.0 | 0\% | 0\% |
| Total | 50 | 72,820 |  |  |  | 122.5 | 122.5 | 41\% | 41\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS

MEN

| Age | TABLE 8A |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/ Expected |  |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 34 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 69 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 103 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 158 | 0.00000 | 0.040\% | 0.040\% | 0.1 | 0.1 | 0\% | 0\% |
| 24 | 0 | 206 | 0.00000 | 0.040\% | 0.040\% | 0.1 | 0.1 | 0\% | 0\% |
| 25 | 0 | 239 | 0.00000 | 0.040\% | 0.040\% | 0.1 | 0.1 | 0\% | 0\% |
| 26 | 0 | 303 | 0.00000 | 0.044\% | 0.044\% | 0.1 | 0.1 | 0\% | 0\% |
| 27 | 0 | 404 | 0.00000 | 0.048\% | 0.048\% | 0.2 | 0.2 | 0\% | 0\% |
| 28 | 0 | 499 | 0.00000 | 0.052\% | 0.052\% | 0.3 | 0.3 | 0\% | 0\% |
| 29 | 0 | 564 | 0.00000 | 0.056\% | 0.056\% | 0.3 | 0.3 | 0\% | 0\% |
| 30 | 0 | 620 | 0.00000 | 0.060\% | 0.060\% | 0.4 | 0.4 | 0\% | 0\% |
| 31 | 1 | 668 | 0.00150 | 0.064\% | 0.064\% | 0.4 | 0.4 | 234\% | 234\% |
| 32 | 0 | 684 | 0.00000 | 0.068\% | 0.068\% | 0.5 | 0.5 | 0\% | 0\% |
| 33 | 0 | 783 | 0.00000 | 0.072\% | 0.072\% | 0.6 | 0.6 | 0\% | 0\% |
| 34 | 1 | 868 | 0.00115 | 0.076\% | 0.076\% | 0.7 | 0.7 | 152\% | 152\% |
| 35 | 1 | 918 | 0.00109 | 0.080\% | 0.080\% | 0.7 | 0.7 | 136\% | 136\% |
| 36 | 1 | 1,069 | 0.00094 | 0.084\% | 0.084\% | 0.9 | 0.9 | 111\% | 111\% |
| 37 | 0 | 1,056 | 0.00000 | 0.088\% | 0.088\% | 0.9 | 0.9 | 0\% | 0\% |
| 38 | 0 | 1,118 | 0.00000 | 0.092\% | 0.092\% | 1.0 | 1.0 | 0\% | 0\% |
| 39 | 0 | 1,209 | 0.00000 | 0.096\% | 0.096\% | 1.2 | 1.2 | 0\% | 0\% |
| 40 | 0 | 1,226 | 0.00000 | 0.100\% | 0.100\% | 1.2 | 1.2 | 0\% | 0\% |
| 41 | 0 | 1,282 | 0.00000 | 0.110\% | 0.110\% | 1.4 | 1.4 | 0\% | 0\% |
| 42 | 1 | 1,404 | 0.00071 | 0.120\% | 0.120\% | 1.7 | 1.7 | 59\% | 59\% |
| 43 | 2 | 1,492 | 0.00134 | 0.130\% | 0.130\% | 1.9 | 1.9 | 103\% | 103\% |
| 44 | 3 | 1,591 | 0.00189 | 0.140\% | 0.140\% | 2.2 | 2.2 | 135\% | 135\% |
| 45 | 0 | 1,638 | 0.00000 | 0.150\% | 0.150\% | 2.5 | 2.5 | 0\% | 0\% |
| 46 | 3 | 1,724 | 0.00174 | 0.160\% | 0.160\% | 2.8 | 2.8 | 109\% | 109\% |
| 47 | 4 | 1,746 | 0.00229 | 0.170\% | 0.170\% | 3.0 | 3.0 | 135\% | 135\% |
| 48 | 4 | 1,807 | 0.00221 | 0.180\% | 0.180\% | 3.3 | 3.3 | 123\% | 123\% |
| 49 | 0 | 1,824 | 0.00000 | 0.190\% | 0.190\% | 3.5 | 3.5 | 0\% | 0\% |
| 50 | 4 | 1,790 | 0.00223 | 0.200\% | 0.200\% | 3.6 | 3.6 | 112\% | 112\% |
| 51 | 4 | 1,837 | 0.00218 | 0.220\% | 0.220\% | 4.0 | 4.0 | 99\% | 99\% |
| 52 | 4 | 1,817 | 0.00220 | 0.240\% | 0.240\% | 4.4 | 4.4 | 92\% | 92\% |
| 53 | 4 | 1,847 | 0.00217 | 0.260\% | 0.260\% | 4.8 | 4.8 | 83\% | 83\% |
| 54 | 7 | 1,777 | 0.00394 | 0.280\% | 0.280\% | 5.0 | 5.0 | 141\% | 141\% |
| 55 | 4 | 1,715 | 0.00233 | 0.300\% | 0.300\% | 5.1 | 5.1 | 78\% | 78\% |
| 56 | 1 | 1,626 | 0.00062 | 0.320\% | 0.320\% | 5.2 | 5.2 | 19\% | 19\% |
| 57 | 6 | 1,529 | 0.00392 | 0.340\% | 0.340\% | 5.2 | 5.2 | 115\% | 115\% |
| 58 | 5 | 1,416 | 0.00353 | 0.360\% | 0.360\% | 5.1 | 5.1 | 98\% | 98\% |
| 59 | 3 | 1,381 | 0.00217 | 0.380\% | 0.380\% | 5.2 | 5.2 | 57\% | 57\% |
| 60 | 2 | 1,237 | 0.00162 | 0.400\% | 0.400\% | 4.9 | 4.9 | 40\% | 40\% |
| 61 | 6 | 1,154 | 0.00520 | 0.420\% | 0.420\% | 4.8 | 4.8 | 124\% | 124\% |
| 62 | 2 | 988 | 0.00202 | 0.440\% | 0.440\% | 4.3 | 4.3 | 46\% | 46\% |
| 63 | 2 | 803 | 0.00249 | 0.460\% | 0.460\% | 3.7 | 3.7 | 54\% | 54\% |
| 64 | 3 | 679 | 0.00442 | 0.480\% | 0.480\% | 3.3 | 3.3 | 92\% | 92\% |
| 65 | 1 | 560 | 0.00179 | 0.500\% | 0.500\% | 2.8 | 2.8 | 36\% | 36\% |
| 66 | 2 | 470 | 0.00426 | 0.540\% | 0.540\% | 2.5 | 2.5 | 79\% | 79\% |
| 67 | 5 | 390 | 0.01282 | 0.580\% | 0.580\% | 2.3 | 2.3 | 221\% | 221\% |
| 68 | 2 | 305 | 0.00656 | 0.620\% | 0.620\% | 1.9 | 1.9 | 106\% | 106\% |
| 69 | 0 | 266 | 0.00000 | 0.660\% | 0.660\% | 1.8 | 1.8 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0.0 | 0.0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0.0 | 0.0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0.0 | 0.0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0.0 | 0.0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0.0 | 0.0 | 0\% | 0\% |
| Other | 4 | 9 | 0.44444 | 0.000\% | 0.000\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 92 | 50,902 |  |  |  | 111.8 | 111.8 | 82\% | 82\% |

## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

| Age | TABLE 8B |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/ Expected |  |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 32 | 0.00000 | 0.030\% | 0.030\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 60 | 0.00000 | 0.030\% | 0.030\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 112 | 0.00000 | 0.030\% | 0.030\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 184 | 0.00000 | 0.030\% | 0.030\% | 0.1 | 0.1 | 0\% | 0\% |
| 24 | 0 | 324 | 0.00000 | 0.030\% | 0.030\% | 0.1 | 0.1 | 0\% | 0\% |
| 25 | 0 | 451 | 0.00000 | 0.030\% | 0.030\% | 0.1 | 0.1 | 0\% | 0\% |
| 26 | 0 | 617 | 0.00000 | 0.032\% | 0.032\% | 0.2 | 0.2 | 0\% | 0\% |
| 27 | 0 | 788 | 0.00000 | 0.034\% | 0.034\% | 0.3 | 0.3 | 0\% | 0\% |
| 28 | 0 | 1,014 | 0.00000 | 0.036\% | 0.036\% | 0.4 | 0.4 | 0\% | 0\% |
| 29 | 0 | 1,213 | 0.00000 | 0.038\% | 0.038\% | 0.5 | 0.5 | 0\% | 0\% |
| 30 | 0 | 1,376 | 0.00000 | 0.040\% | 0.040\% | 0.6 | 0.6 | 0\% | 0\% |
| 31 | 0 | 1,529 | 0.00000 | 0.042\% | 0.042\% | 0.6 | 0.6 | 0\% | 0\% |
| 32 | 0 | 1,591 | 0.00000 | 0.044\% | 0.044\% | 0.7 | 0.7 | 0\% | 0\% |
| 33 | 1 | 1,699 | 0.00059 | 0.046\% | 0.046\% | 0.8 | 0.8 | 128\% | 128\% |
| 34 | 0 | 1,890 | 0.00000 | 0.048\% | 0.048\% | 0.9 | 0.9 | 0\% | 0\% |
| 35 | 0 | 2,058 | 0.00000 | 0.050\% | 0.050\% | 1.0 | 1.0 | 0\% | 0\% |
| 36 | 0 | 2,217 | 0.00000 | 0.052\% | 0.052\% | 1.2 | 1.2 | 0\% | 0\% |
| 37 | 2 | 2,343 | 0.00085 | 0.054\% | 0.054\% | 1.3 | 1.3 | 158\% | 158\% |
| 38 | 3 | 2,599 | 0.00115 | 0.056\% | 0.056\% | 1.5 | 1.5 | 206\% | 206\% |
| 39 | 1 | 2,874 | 0.00035 | 0.058\% | 0.058\% | 1.7 | 1.7 | 60\% | 60\% |
| 40 | 0 | 3,174 | 0.00000 | 0.060\% | 0.060\% | 1.9 | 1.9 | 0\% | 0\% |
| 41 | 2 | 3,520 | 0.00057 | 0.068\% | 0.068\% | 2.4 | 2.4 | 84\% | 84\% |
| 42 | 0 | 3,901 | 0.00000 | 0.076\% | 0.076\% | 3.0 | 3.0 | 0\% | 0\% |
| 43 | 2 | 4,287 | 0.00047 | 0.084\% | 0.084\% | 3.6 | 3.6 | 56\% | 56\% |
| 44 | 2 | 4,771 | 0.00042 | 0.092\% | 0.092\% | 4.4 | 4.4 | 46\% | 46\% |
| 45 | 2 | 5,241 | 0.00038 | 0.100\% | 0.100\% | 5.2 | 5.2 | 38\% | 38\% |
| 46 | 4 | 5,598 | 0.00071 | 0.110\% | 0.110\% | 6.2 | 6.2 | 65\% | 65\% |
| 47 | 8 | 5,975 | 0.00134 | 0.120\% | 0.120\% | 7.2 | 7.2 | 112\% | 112\% |
| 48 | 3 | 6,206 | 0.00048 | 0.130\% | 0.130\% | 8.1 | 8.1 | 37\% | 37\% |
| 49 | 5 | 6,490 | 0.00077 | 0.140\% | 0.140\% | 9.1 | 9.1 | 55\% | 55\% |
| 50 | 5 | 6,747 | 0.00074 | 0.150\% | 0.150\% | 10.1 | 10.1 | 49\% | 49\% |
| 51 | 6 | 6,913 | 0.00087 | 0.160\% | 0.160\% | 11.1 | 11.1 | 54\% | 54\% |
| 52 | 6 | 7,067 | 0.00085 | 0.170\% | 0.170\% | 12.0 | 12.0 | 50\% | 50\% |
| 53 | 4 | 7,196 | 0.00056 | 0.180\% | 0.180\% | 13.0 | 13.0 | 31\% | 31\% |
| 54 | 6 | 7,281 | 0.00082 | 0.190\% | 0.190\% | 13.8 | 13.8 | 43\% | 43\% |
| 55 | 4 | 7,117 | 0.00056 | 0.200\% | 0.200\% | 14.2 | 14.2 | 28\% | 28\% |
| 56 | 6 | 7,121 | 0.00084 | 0.210\% | 0.210\% | 15.0 | 15.0 | 40\% | 40\% |
| 57 | 11 | 6,839 | 0.00161 | 0.220\% | 0.220\% | 15.0 | 15.0 | 73\% | 73\% |
| 58 | 12 | 6,461 | 0.00186 | 0.230\% | 0.230\% | 14.9 | 14.9 | 81\% | 81\% |
| 59 | 17 | 6,333 | 0.00268 | 0.240\% | 0.240\% | 15.2 | 15.2 | 112\% | 112\% |
| 60 | 11 | 5,857 | 0.00188 | 0.250\% | 0.250\% | 14.6 | 14.6 | 75\% | 75\% |
| 61 | 10 | 5,517 | 0.00181 | 0.260\% | 0.260\% | 14.3 | 14.3 | 70\% | 70\% |
| 62 | 9 | 4,919 | 0.00183 | 0.270\% | 0.270\% | 13.3 | 13.3 | 68\% | 68\% |
| 63 | 10 | 3,975 | 0.00252 | 0.280\% | 0.280\% | 11.1 | 11.1 | 90\% | 90\% |
| 64 | 6 | 3,278 | 0.00183 | 0.290\% | 0.290\% | 9.5 | 9.5 | 63\% | 63\% |
| 65 | 8 | 2,819 | 0.00284 | 0.300\% | 0.300\% | 8.5 | 8.5 | 95\% | 95\% |
| 66 | 5 | 2,192 | 0.00228 | 0.320\% | 0.320\% | 7.0 | 7.0 | 71\% | 71\% |
| 67 | 5 | 1,724 | 0.00290 | 0.340\% | 0.340\% | 5.9 | 5.9 | 85\% | 85\% |
| 68 | 3 | 1,416 | 0.00212 | 0.360\% | 0.360\% | 5.1 | 5.1 | 59\% | 59\% |
| 69 | 2 | 1,174 | 0.00170 | 0.380\% | 0.380\% | 4.5 | 4.5 | 45\% | 45\% |
| 70 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0.0 | 0.0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0.0 | 0.0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0.0 | 0.0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0.0 | 0.0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.000\% | 0.000\% | 0.0 | 0.0 | 0\% | 0\% |
| Other | 10 | 12 | 0.83333 | 0.000\% | 0.000\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 191 | 176,092 |  |  |  | 290.8 | 290.8 | 66\% | 66\% |

## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM

 ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN

## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM

## ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS

WOMEN


NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Plan <br> Year Ending June 30, | TABLE 8C |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Mortality Rate |  |
|  | Life Years Exposed | Actual <br> Deaths | Expected Deaths | Actual/ <br> Expected | Actual <br> (3) / (2) | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 21,879 | 57 | 36.7 | 155\% | 0.261\% | 0.168\% |
| 2005 | 20,816 | 18 | 36.2 | 50\% | 0.086\% | 0.174\% |
| 2006 | 22,417 | 62 | 39.6 | 157\% | 0.277\% | 0.177\% |
| 2007 | 22,747 | 56 | 39.7 | 141\% | 0.246\% | 0.175\% |
| 2008 | 21,830 | 28 | 38.8 | 72\% | 0.128\% | 0.178\% |
| 2009 | 22,588 | 8 | 40.4 | 20\% | 0.035\% | 0.179\% |
| 2010 | 22,668 | 0 | 41.1 | 0\% | 0.000\% | 0.181\% |
| 2011 | 22,633 | 36 | 41.6 | 86\% | 0.159\% | 0.184\% |
| 2012 | 22,450 | 27 | 41.6 | 65\% | 0.120\% | 0.185\% |
| 2013 | 26,966 | 20 | 47.1 | 42\% | 0.074\% | 0.175\% |
| Total | 226,994 | 312 | 402.7 | 77\% | 0.137\% | 0.177\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN

|  | TABLE 9A |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.20\% | 0.17\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.20\% | 0.17\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.20\% | 0.17\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 4 | 0.0000 | 0.20\% | 0.17\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 1 | 0.0000 | 0.20\% | 0.17\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 2 | 0.0000 | 0.20\% | 0.17\% | 0.0 | 0.0 | 0\% | 0\% |
| 26 | 0 | 4 | 0.0000 | 0.20\% | 0.17\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 16 | 0.0000 | 0.20\% | 0.17\% | 0.0 | 0.0 | 0\% | 0\% |
| 28 | 0 | 36 | 0.0000 | 0.20\% | 0.17\% | 0.1 | 0.1 | 0\% | 0\% |
| 29 | 0 | 56 | 0.0000 | 0.20\% | 0.17\% | 0.1 | 0.1 | 0\% | 0\% |
| 30 | 0 | 72 | 0.0000 | 0.20\% | 0.17\% | 0.1 | 0.1 | 0\% | 0\% |
| 31 | 0 | 87 | 0.0000 | 0.22\% | 0.19\% | 0.2 | 0.2 | 0\% | 0\% |
| 32 | 0 | 93 | 0.0000 | 0.24\% | 0.20\% | 0.2 | 0.2 | 0\% | 0\% |
| 33 | 0 | 126 | 0.0000 | 0.26\% | 0.22\% | 0.3 | 0.3 | 0\% | 0\% |
| 34 | 0 | 145 | 0.0000 | 0.28\% | 0.24\% | 0.4 | 0.3 | 0\% | 0\% |
| 35 | 0 | 170 | 0.0000 | 0.30\% | 0.26\% | 0.5 | 0.4 | 0\% | 0\% |
| 36 | 0 | 177 | 0.0000 | 0.32\% | 0.27\% | 0.6 | 0.5 | 0\% | 0\% |
| 37 | 0 | 199 | 0.0000 | 0.34\% | 0.29\% | 0.7 | 0.6 | 0\% | 0\% |
| 38 | 0 | 210 | 0.0000 | 0.36\% | 0.31\% | 0.8 | 0.6 | 0\% | 0\% |
| 39 | 0 | 257 | 0.0000 | 0.38\% | 0.32\% | 1.0 | 0.8 | 0\% | 0\% |
| 40 | 0 | 313 | 0.0000 | 0.40\% | 0.34\% | 1.3 | 1.1 | 0\% | 0\% |
| 41 | 0 | 318 | 0.0000 | 0.42\% | 0.36\% | 1.3 | 1.1 | 0\% | 0\% |
| 42 | 1 | 359 | 0.0028 | 0.44\% | 0.37\% | 1.6 | 1.3 | 63\% | 74\% |
| 43 | 0 | 391 | 0.0000 | 0.46\% | 0.39\% | 1.8 | 1.5 | 0\% | 0\% |
| 44 | 0 | 400 | 0.0000 | 0.48\% | 0.41\% | 1.9 | 1.6 | 0\% | 0\% |
| 45 | 2 | 426 | 0.0047 | 0.50\% | 0.43\% | 2.1 | 1.8 | 94\% | 110\% |
| 46 | 0 | 457 | 0.0000 | 0.52\% | 0.44\% | 2.4 | 2.0 | 0\% | 0\% |
| 47 | 2 | 479 | 0.0042 | 0.54\% | 0.46\% | 2.6 | 2.2 | 77\% | 91\% |
| 48 | 2 | 550 | 0.0036 | 0.56\% | 0.48\% | 3.1 | 2.6 | 65\% | 76\% |
| 49 | 2 | 586 | 0.0034 | 0.58\% | 0.49\% | 3.4 | 2.9 | 59\% | 69\% |
| 50 | 0 | 617 | 0.0000 | 0.60\% | 0.51\% | 3.7 | 3.1 | 0\% | 0\% |
| 51 | 2 | 608 | 0.0033 | 0.62\% | 0.53\% | 3.8 | 3.2 | 53\% | 62\% |
| 52 | 2 | 586 | 0.0034 | 0.64\% | 0.54\% | 3.8 | 3.2 | 53\% | 63\% |
| 53 | 2 | 570 | 0.0035 | 0.66\% | 0.56\% | 3.8 | 3.2 | 53\% | 63\% |
| 54 | 3 | 578 | 0.0052 | 0.68\% | 0.58\% | 3.9 | 3.3 | 76\% | 90\% |
| 55 | 2 | 574 | 0.0035 | 0.70\% | 0.60\% | 4.0 | 3.4 | 50\% | 59\% |
| 56 | 1 | 549 | 0.0018 | 0.70\% | 0.60\% | 3.8 | 3.3 | 26\% | 31\% |
| 57 | 1 | 540 | 0.0019 | 0.70\% | 0.60\% | 3.8 | 3.2 | 26\% | 31\% |
| 58 | 2 | 493 | 0.0041 | 0.70\% | 0.60\% | 3.5 | 2.9 | 58\% | 68\% |
| 59 | 0 | 460 | 0.0000 | 0.70\% | 0.60\% | 3.2 | 2.7 | 0\% | 0\% |
| 60 | 2 | 452 | 0.0044 | 0.70\% | 0.60\% | 3.2 | 2.7 | 63\% | 74\% |
| 61 | 3 | 399 | 0.0075 | 0.70\% | 0.60\% | 2.8 | 2.4 | 107\% | 126\% |
| 62 | 2 | 346 | 0.0058 | 0.70\% | 0.60\% | 2.4 | 2.1 | 83\% | 97\% |
| 63 | 1 | 272 | 0.0037 | 0.70\% | 0.60\% | 1.9 | 1.6 | 53\% | 62\% |
| 64 | 0 | 225 | 0.0000 | 0.70\% | 0.60\% | 1.6 | 1.3 | 0\% | 0\% |
| 65 | 0 | 201 | 0.0000 | 0.70\% | 0.60\% | 1.4 | 1.2 | 0\% | 0\% |
| 66 | 0 | 161 | 0.0000 | 0.70\% | 0.60\% | 1.1 | 1.0 | 0\% | 0\% |
| 67 | 0 | 133 | 0.0000 | 0.70\% | 0.60\% | 0.9 | 0.8 | 0\% | 0\% |
| 68 | 1 | 103 | 0.0097 | 0.70\% | 0.60\% | 0.7 | 0.6 | 139\% | 163\% |
| 69 | 0 | 84 | 0.0000 | 0.70\% | 0.60\% | 0.6 | 0.5 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Other | 1 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 34 | 13,885 |  |  |  | 80.3 | 68.3 | 42\% | 50\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS women

|  | TABLE 9B |  |  | Assumed | bability | 4-YEAR PERIOD ENDING 6/30/2011 <br> Expected Disabilities <br> Actual/ Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | Proposed $\text { (3) } \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.20\% | 0.14\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.20\% | 0.14\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.20\% | 0.14\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 1 | 0.0000 | 0.20\% | 0.14\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 6 | 0.0000 | 0.20\% | 0.14\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 12 | 0.0000 | 0.20\% | 0.14\% | 0.0 | 0.0 | 0\% | 0\% |
| 26 | 0 | 21 | 0.0000 | 0.20\% | 0.14\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 35 | 0.0000 | 0.20\% | 0.14\% | 0.1 | 0.0 | 0\% | 0\% |
| 28 | 0 | 68 | 0.0000 | 0.20\% | 0.14\% | 0.1 | 0.1 | 0\% | 0\% |
| 29 | 0 | 96 | 0.0000 | 0.20\% | 0.14\% | 0.2 | 0.1 | 0\% | 0\% |
| 30 | 0 | 146 | 0.0000 | 0.20\% | 0.14\% | 0.3 | 0.2 | 0\% | 0\% |
| 31 | 0 | 193 | 0.0000 | 0.20\% | 0.14\% | 0.4 | 0.3 | 0\% | 0\% |
| 32 | 0 | 254 | 0.0000 | 0.20\% | 0.14\% | 0.5 | 0.4 | 0\% | 0\% |
| 33 | 0 | 290 | 0.0000 | 0.20\% | 0.14\% | 0.6 | 0.4 | 0\% | 0\% |
| 34 | 0 | 343 | 0.0000 | 0.20\% | 0.14\% | 0.7 | 0.5 | 0\% | 0\% |
| 35 | 1 | 372 | 0.0027 | 0.20\% | 0.14\% | 0.7 | 0.5 | 134\% | 192\% |
| 36 | 0 | 407 | 0.0000 | 0.21\% | 0.15\% | 0.9 | 0.6 | 0\% | 0\% |
| 37 | 0 | 481 | 0.0000 | 0.22\% | 0.15\% | 1.1 | 0.7 | 0\% | 0\% |
| 38 | 0 | 534 | 0.0000 | 0.23\% | 0.16\% | 1.2 | 0.9 | 0\% | 0\% |
| 39 | 0 | 570 | 0.0000 | 0.24\% | 0.17\% | 1.4 | 1.0 | 0\% | 0\% |
| 40 | 0 | 633 | 0.0000 | 0.25\% | 0.18\% | 1.6 | 1.1 | 0\% | 0\% |
| 41 | 0 | 714 | 0.0000 | 0.26\% | 0.18\% | 1.9 | 1.3 | 0\% | 0\% |
| 42 | 1 | 865 | 0.0012 | 0.27\% | 0.19\% | 2.3 | 1.6 | 43\% | 61\% |
| 43 | 0 | 1,007 | 0.0000 | 0.28\% | 0.20\% | 2.8 | 2.0 | 0\% | 0\% |
| 44 | 2 | 1,136 | 0.0018 | 0.29\% | 0.20\% | 3.3 | 2.3 | 61\% | 87\% |
| 45 | 0 | 1,330 | 0.0000 | 0.30\% | 0.21\% | 4.0 | 2.8 | 0\% | 0\% |
| 46 | 0 | 1,419 | 0.0000 | 0.34\% | 0.24\% | 4.8 | 3.4 | 0\% | 0\% |
| 47 | 0 | 1,562 | 0.0000 | 0.38\% | 0.27\% | 5.9 | 4.2 | 0\% | 0\% |
| 48 | 1 | 1,680 | 0.0006 | 0.42\% | 0.29\% | 7.1 | 4.9 | 14\% | 20\% |
| 49 | 1 | 1,849 | 0.0005 | 0.46\% | 0.32\% | 8.5 | 6.0 | 12\% | 17\% |
| 50 | 3 | 2,018 | 0.0015 | 0.50\% | 0.35\% | 10.1 | 7.1 | 30\% | 42\% |
| 51 | 6 | 2,107 | 0.0028 | 0.54\% | 0.38\% | 11.4 | 8.0 | 53\% | 75\% |
| 52 | 2 | 2,198 | 0.0009 | 0.58\% | 0.41\% | 12.7 | 8.9 | 16\% | 22\% |
| 53 | 3 | 2,225 | 0.0013 | 0.62\% | 0.43\% | 13.8 | 9.7 | 22\% | 31\% |
| 54 | 9 | 2,317 | 0.0039 | 0.66\% | 0.46\% | 15.3 | 10.7 | 59\% | 84\% |
| 55 | 5 | 2,348 | 0.0021 | 0.70\% | 0.49\% | 16.4 | 11.5 | 30\% | 43\% |
| 56 | 8 | 2,315 | 0.0035 | 0.70\% | 0.49\% | 16.2 | 11.3 | 49\% | 71\% |
| 57 | 5 | 2,298 | 0.0022 | 0.70\% | 0.49\% | 16.1 | 11.3 | 31\% | 44\% |
| 58 | 4 | 2,203 | 0.0018 | 0.70\% | 0.49\% | 15.4 | 10.8 | 26\% | 37\% |
| 59 | 4 | 2,114 | 0.0019 | 0.70\% | 0.49\% | 14.8 | 10.4 | 27\% | 39\% |
| 60 | 7 | 2,137 | 0.0033 | 0.70\% | 0.49\% | 15.0 | 10.5 | 47\% | 67\% |
| 61 | 13 | 2,039 | 0.0064 | 0.70\% | 0.49\% | 14.3 | 10.0 | 91\% | 130\% |
| 62 | 7 | 1,830 | 0.0038 | 0.70\% | 0.49\% | 12.8 | 9.0 | 55\% | 78\% |
| 63 | 10 | 1,473 | 0.0068 | 0.70\% | 0.49\% | 10.3 | 7.2 | 97\% | 139\% |
| 64 | 5 | 1,183 | 0.0042 | 0.70\% | 0.49\% | 8.3 | 5.8 | 60\% | 86\% |
| 65 | 3 | 1,034 | 0.0029 | 0.70\% | 0.49\% | 7.2 | 5.1 | 41\% | 59\% |
| 66 | 0 | 821 | 0.0000 | 0.70\% | 0.49\% | 5.7 | 4.0 | 0\% | 0\% |
| 67 | 1 | 678 | 0.0015 | 0.70\% | 0.49\% | 4.7 | 3.3 | 21\% | 30\% |
| 68 | 1 | 540 | 0.0019 | 0.70\% | 0.49\% | 3.8 | 2.6 | 26\% | 38\% |
| 69 | 3 | 450 | 0.0067 | 0.70\% | 0.49\% | 3.2 | 2.2 | 95\% | 136\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Other | 3 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 108 | 50,352 |  |  |  | 277.9 | 194.5 | 39\% | 56\% |

## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM

## ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS

MEN

| Age | TABLE 9A GROUPED |  |  | Assumed Probability $\begin{gathered}\text { 4-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } /(\mathbf{3}) \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 5 | 0.0000 | 0.20\% | 0.17\% | 0.0 | 0.0 | 0\% | 0\% |
| 25-29 | 0 | 114 | 0.0000 | 0.20\% | 0.17\% | 0.2 | 0.2 | 0\% | 0\% |
| 30-34 | 0 | 523 | 0.0000 | 0.25\% | 0.21\% | 1.3 | 1.1 | 0\% | 0\% |
| 35-39 | 0 | 1,013 | 0.0000 | 0.34\% | 0.29\% | 3.5 | 3.0 | 0\% | 0\% |
| 40-44 | 1 | 1,781 | 0.0006 | 0.44\% | 0.38\% | 7.9 | 6.7 | 13\% | 15\% |
| 45-49 | 8 | 2,498 | 0.0032 | 0.54\% | 0.46\% | 13.6 | 11.5 | 59\% | 69\% |
| 50-54 | 9 | 2,959 | 0.0030 | 0.64\% | 0.54\% | 18.9 | 16.1 | 48\% | 56\% |
| 55-59 | 6 | 2,616 | 0.0023 | 0.70\% | 0.60\% | 18.3 | 15.6 | 33\% | 39\% |
| 60-64 | 8 | 1,694 | 0.0047 | 0.70\% | 0.60\% | 11.9 | 10.1 | 67\% | 79\% |
| 65-69 | 1 | 682 | 0.0015 | 0.70\% | 0.60\% | 4.8 | 4.1 | 21\% | 25\% |
| 70-74 | 0 | 0 | N/A | 0.00\% |  | 0.0 | 0.0 | 0\% | 0\% |
| Other | 1 | 0 | N/A | 0.00\% |  | 0.0 | 0.0 | 0\% | 0\% |
| Total | 34 | 13,885 |  |  |  | 80.3 | 68.3 | 42\% | 50\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM
ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

|  | TABLE 9B GROUPED |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2011 <br> Expected Disabilities |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } /(\mathbf{3}) \\ & \hline \end{aligned}$ | Expected $(7) /(3)$ | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 7 | 0.0000 | 0.20\% | 0.14\% | 0.0 | 0.0 | 0\% | 0\% |
| 25-29 | 0 | 232 | 0.0000 | 0.20\% | 0.14\% | 0.5 | 0.3 | 0\% | 0\% |
| 30-34 | 0 | 1,226 | 0.0000 | 0.20\% | 0.14\% | 2.5 | 1.7 | 0\% | 0\% |
| 35-39 | 1 | 2,364 | 0.0004 | 0.22\% | 0.16\% | 5.3 | 3.7 | 19\% | 27\% |
| 40-44 | 3 | 4,355 | 0.0007 | 0.27\% | 0.19\% | 11.9 | 8.3 | 25\% | 36\% |
| 45-49 | 2 | 7,840 | 0.0003 | 0.39\% | 0.27\% | 30.3 | 21.2 | 7\% | 9\% |
| 50-54 | 23 | 10,865 | 0.0021 | 0.58\% | 0.41\% | 63.3 | 44.3 | 36\% | 52\% |
| 55-59 | 26 | 11,278 | 0.0023 | 0.70\% | 0.49\% | 78.9 | 55.3 | 33\% | 47\% |
| 60-64 | 42 | 8,662 | 0.0048 | 0.70\% | 0.49\% | 60.6 | 42.4 | 69\% | 99\% |
| 65-69 | 8 | 3,523 | 0.0023 | 0.70\% | 0.49\% | 24.7 | 17.3 | 32\% | 46\% |
| 70-74 | 0 | 0 | N/A | 0.00\% |  | 0.0 | 0.0 | 0\% | 0\% |
| Other | 3 | 0 | N/A | 0.00\% |  | 0.0 | 0.0 | 0\% | 0\% |
| Total | 108 | 50,352 |  |  |  | 277.9 | 194.5 | 39\% | 56\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN

| Age | TABLE 9A |  |  | Assumed | bability | 8-YEAR PERIOD ENDING 6/30/2011 <br> Expected Disabilities <br> Actual/ Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \quad(2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | $\begin{gathered} \text { Proposed } \\ (2) /(8) \\ \hline \end{gathered}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.20\% | 0.17\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.20\% | 0.17\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.20\% | 0.17\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 5 | 0.0000 | 0.20\% | 0.17\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 3 | 0.0000 | 0.20\% | 0.17\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 12 | 0.0000 | 0.20\% | 0.17\% | 0.0 | 0.0 | 0\% | 0\% |
| 26 | 0 | 24 | 0.0000 | 0.20\% | 0.17\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 44 | 0.0000 | 0.20\% | 0.17\% | 0.1 | 0.1 | 0\% | 0\% |
| 28 | 0 | 60 | 0.0000 | 0.20\% | 0.17\% | 0.1 | 0.1 | 0\% | 0\% |
| 29 | 0 | 100 | 0.0000 | 0.20\% | 0.17\% | 0.2 | 0.2 | 0\% | 0\% |
| 30 | 0 | 130 | 0.0000 | 0.20\% | 0.17\% | 0.3 | 0.2 | 0\% | 0\% |
| 31 | 0 | 154 | 0.0000 | 0.22\% | 0.19\% | 0.3 | 0.3 | 0\% | 0\% |
| 32 | 0 | 182 | 0.0000 | 0.24\% | 0.20\% | 0.4 | 0.4 | 0\% | 0\% |
| 33 | 0 | 231 | 0.0000 | 0.26\% | 0.22\% | 0.6 | 0.5 | 0\% | 0\% |
| 34 | 0 | 276 | 0.0000 | 0.28\% | 0.24\% | 0.8 | 0.7 | 0\% | 0\% |
| 35 | 0 | 310 | 0.0000 | 0.30\% | 0.26\% | 0.9 | 0.8 | 0\% | 0\% |
| 36 | 0 | 395 | 0.0000 | 0.32\% | 0.27\% | 1.3 | 1.1 | 0\% | 0\% |
| 37 | 0 | 413 | 0.0000 | 0.34\% | 0.29\% | 1.4 | 1.2 | 0\% | 0\% |
| 38 | 1 | 465 | 0.0022 | 0.36\% | 0.31\% | 1.7 | 1.4 | 60\% | 70\% |
| 39 | 1 | 567 | 0.0018 | 0.38\% | 0.32\% | 2.2 | 1.8 | 46\% | 55\% |
| 40 | 0 | 601 | 0.0000 | 0.40\% | 0.34\% | 2.4 | 2.0 | 0\% | 0\% |
| 41 | 2 | 639 | 0.0031 | 0.42\% | 0.36\% | 2.7 | 2.3 | 75\% | 88\% |
| 42 | 1 | 746 | 0.0013 | 0.44\% | 0.37\% | 3.3 | 2.8 | 30\% | 36\% |
| 43 | 1 | 817 | 0.0012 | 0.46\% | 0.39\% | 3.8 | 3.2 | 27\% | 31\% |
| 44 | 0 | 855 | 0.0000 | 0.48\% | 0.41\% | 4.1 | 3.5 | 0\% | 0\% |
| 45 | 4 | 944 | 0.0042 | 0.50\% | 0.43\% | 4.7 | 4.0 | 85\% | 100\% |
| 46 | 0 | 1,024 | 0.0000 | 0.52\% | 0.44\% | 5.3 | 4.5 | 0\% | 0\% |
| 47 | 3 | 1,034 | 0.0029 | 0.54\% | 0.46\% | 5.6 | 4.7 | 54\% | 63\% |
| 48 | 5 | 1,103 | 0.0045 | 0.56\% | 0.48\% | 6.2 | 5.3 | 81\% | 95\% |
| 49 | 4 | 1,132 | 0.0035 | 0.58\% | 0.49\% | 6.6 | 5.6 | 61\% | 72\% |
| 50 | 5 | 1,155 | 0.0043 | 0.60\% | 0.51\% | 6.9 | 5.9 | 72\% | 85\% |
| 51 | 5 | 1,139 | 0.0044 | 0.62\% | 0.53\% | 7.1 | 6.0 | 71\% | 83\% |
| 52 | 5 | 1,131 | 0.0044 | 0.64\% | 0.54\% | 7.2 | 6.2 | 69\% | 81\% |
| 53 | 5 | 1,151 | 0.0043 | 0.66\% | 0.56\% | 7.6 | 6.5 | 66\% | 77\% |
| 54 | 9 | 1,132 | 0.0080 | 0.68\% | 0.58\% | 7.7 | 6.5 | 117\% | 138\% |
| 55 | 5 | 1,088 | 0.0046 | 0.70\% | 0.60\% | 7.6 | 6.5 | 66\% | 77\% |
| 56 | 2 | 1,014 | 0.0020 | 0.70\% | 0.60\% | 7.1 | 6.0 | 28\% | 33\% |
| 57 | 3 | 960 | 0.0031 | 0.70\% | 0.60\% | 6.7 | 5.7 | 45\% | 53\% |
| 58 | 4 | 871 | 0.0046 | 0.70\% | 0.60\% | 6.1 | 5.2 | 66\% | 77\% |
| 59 | 1 | 847 | 0.0012 | 0.70\% | 0.60\% | 5.9 | 5.0 | 17\% | 20\% |
| 60 | 5 | 778 | 0.0064 | 0.70\% | 0.60\% | 5.4 | 4.6 | 92\% | 108\% |
| 61 | 5 | 728 | 0.0069 | 0.70\% | 0.60\% | 5.1 | 4.3 | 98\% | 115\% |
| 62 | 4 | 644 | 0.0062 | 0.70\% | 0.60\% | 4.5 | 3.8 | 89\% | 104\% |
| 63 | 3 | 488 | 0.0061 | 0.70\% | 0.60\% | 3.4 | 2.9 | 88\% | 103\% |
| 64 | 2 | 420 | 0.0048 | 0.70\% | 0.60\% | 2.9 | 2.5 | 68\% | 80\% |
| 65 | 1 | 354 | 0.0028 | 0.70\% | 0.60\% | 2.5 | 2.1 | 40\% | 47\% |
| 66 | 0 | 283 | 0.0000 | 0.70\% | 0.60\% | 2.0 | 1.7 | 0\% | 0\% |
| 67 | 0 | 254 | 0.0000 | 0.70\% | 0.60\% | 1.8 | 1.5 | 0\% | 0\% |
| 68 | 1 | 186 | 0.0054 | 0.70\% | 0.60\% | 1.3 | 1.1 | 77\% | 90\% |
| 69 | 0 | 154 | 0.0000 | 0.70\% | 0.60\% | 1.1 | 0.9 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Other | 3 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 90 | 27,043 |  |  |  | 154.9 | 131.7 | 58\% | 68\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS women

|  | TABLE 9B |  |  | Assumed | bability | 8-YEAR PERIOD ENDING 6/30/2011 <br> Expected Disabilities <br> Actual/ Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } /(\mathbf{3}) \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.20\% | 0.14\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.20\% | 0.14\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.20\% | 0.14\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 2 | 0.0000 | 0.20\% | 0.14\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 13 | 0.0000 | 0.20\% | 0.14\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 22 | 0.0000 | 0.20\% | 0.14\% | 0.0 | 0.0 | 0\% | 0\% |
| 26 | 0 | 43 | 0.0000 | 0.20\% | 0.14\% | 0.1 | 0.1 | 0\% | 0\% |
| 27 | 0 | 61 | 0.0000 | 0.20\% | 0.14\% | 0.1 | 0.1 | 0\% | 0\% |
| 28 | 0 | 116 | 0.0000 | 0.20\% | 0.14\% | 0.2 | 0.2 | 0\% | 0\% |
| 29 | 0 | 185 | 0.0000 | 0.20\% | 0.14\% | 0.4 | 0.3 | 0\% | 0\% |
| 30 | 0 | 266 | 0.0000 | 0.20\% | 0.14\% | 0.5 | 0.4 | 0\% | 0\% |
| 31 | 0 | 370 | 0.0000 | 0.20\% | 0.14\% | 0.7 | 0.5 | 0\% | 0\% |
| 32 | 0 | 447 | 0.0000 | 0.20\% | 0.14\% | 0.9 | 0.6 | 0\% | 0\% |
| 33 | 0 | 508 | 0.0000 | 0.20\% | 0.14\% | 1.0 | 0.7 | 0\% | 0\% |
| 34 | 0 | 638 | 0.0000 | 0.20\% | 0.14\% | 1.3 | 0.9 | 0\% | 0\% |
| 35 | 1 | 729 | 0.0014 | 0.20\% | 0.14\% | 1.5 | 1.0 | 69\% | 98\% |
| 36 | 0 | 809 | 0.0000 | 0.21\% | 0.15\% | 1.7 | 1.2 | 0\% | 0\% |
| 37 | 0 | 905 | 0.0000 | 0.22\% | 0.15\% | 2.0 | 1.4 | 0\% | 0\% |
| 38 | 0 | 1,070 | 0.0000 | 0.23\% | 0.16\% | 2.5 | 1.7 | 0\% | 0\% |
| 39 | 0 | 1,218 | 0.0000 | 0.24\% | 0.17\% | 2.9 | 2.0 | 0\% | 0\% |
| 40 | 1 | 1,334 | 0.0007 | 0.25\% | 0.18\% | 3.3 | 2.3 | 30\% | 43\% |
| 41 | 0 | 1,505 | 0.0000 | 0.26\% | 0.18\% | 3.9 | 2.7 | 0\% | 0\% |
| 42 | 3 | 1,763 | 0.0017 | 0.27\% | 0.19\% | 4.8 | 3.3 | 63\% | 90\% |
| 43 | 0 | 2,045 | 0.0000 | 0.28\% | 0.20\% | 5.7 | 4.0 | 0\% | 0\% |
| 44 | 2 | 2,310 | 0.0009 | 0.29\% | 0.20\% | 6.7 | 4.7 | 30\% | 43\% |
| 45 | 3 | 2,628 | 0.0011 | 0.30\% | 0.21\% | 7.9 | 5.5 | 38\% | 54\% |
| 46 | 3 | 2,838 | 0.0011 | 0.34\% | 0.24\% | 9.6 | 6.8 | 31\% | 44\% |
| 47 | 2 | 3,122 | 0.0006 | 0.38\% | 0.27\% | 11.9 | 8.3 | 17\% | 24\% |
| 48 | 4 | 3,363 | 0.0012 | 0.42\% | 0.29\% | 14.1 | 9.9 | 28\% | 40\% |
| 49 | 6 | 3,600 | 0.0017 | 0.46\% | 0.32\% | 16.6 | 11.6 | 36\% | 52\% |
| 50 | 6 | 3,826 | 0.0016 | 0.50\% | 0.35\% | 19.1 | 13.4 | 31\% | 45\% |
| 51 | 17 | 3,989 | 0.0043 | 0.54\% | 0.38\% | 21.5 | 15.1 | 79\% | 113\% |
| 52 | 9 | 4,135 | 0.0022 | 0.58\% | 0.41\% | 24.0 | 16.8 | 38\% | 54\% |
| 53 | 8 | 4,223 | 0.0019 | 0.62\% | 0.43\% | 26.2 | 18.3 | 31\% | 44\% |
| 54 | 12 | 4,400 | 0.0027 | 0.66\% | 0.46\% | 29.0 | 20.3 | 41\% | 59\% |
| 55 | 16 | 4,406 | 0.0036 | 0.70\% | 0.49\% | 30.8 | 21.6 | 52\% | 74\% |
| 56 | 15 | 4,555 | 0.0033 | 0.70\% | 0.49\% | 31.9 | 22.3 | 47\% | 67\% |
| 57 | 12 | 4,392 | 0.0027 | 0.70\% | 0.49\% | 30.7 | 21.5 | 39\% | 56\% |
| 58 | 18 | 4,173 | 0.0043 | 0.70\% | 0.49\% | 29.2 | 20.4 | 62\% | 88\% |
| 59 | 12 | 4,201 | 0.0029 | 0.70\% | 0.49\% | 29.4 | 20.6 | 41\% | 58\% |
| 60 | 21 | 3,980 | 0.0053 | 0.70\% | 0.49\% | 27.9 | 19.5 | 75\% | 108\% |
| 61 | 24 | 3,773 | 0.0064 | 0.70\% | 0.49\% | 26.4 | 18.5 | 91\% | 130\% |
| 62 | 17 | 3,391 | 0.0050 | 0.70\% | 0.49\% | 23.7 | 16.6 | 72\% | 102\% |
| 63 | 16 | 2,736 | 0.0058 | 0.70\% | 0.49\% | 19.2 | 13.4 | 84\% | 119\% |
| 64 | 7 | 2,184 | 0.0032 | 0.70\% | 0.49\% | 15.3 | 10.7 | 46\% | 65\% |
| 65 | 6 | 1,896 | 0.0032 | 0.70\% | 0.49\% | 13.3 | 9.3 | 45\% | 65\% |
| 66 | 2 | 1,489 | 0.0013 | 0.70\% | 0.49\% | 10.4 | 7.3 | 19\% | 27\% |
| 67 | 3 | 1,198 | 0.0025 | 0.70\% | 0.49\% | 8.4 | 5.9 | 36\% | 51\% |
| 68 | 2 | 997 | 0.0020 | 0.70\% | 0.49\% | 7.0 | 4.9 | 29\% | 41\% |
| 69 | 4 | 818 | 0.0049 | 0.70\% | 0.49\% | 5.7 | 4.0 | 70\% | 100\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Other | 5 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 257 | 96,672 |  |  |  | 529.6 | 370.7 | 49\% | 69\% |

## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM

 ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN|  | TABLE 9A GROUPED |  |  | Assumed Probability $\quad \begin{gathered}\text { 8-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } /(\mathbf{3}) \\ & \hline \end{aligned}$ | Expected $(7) /(3)$ | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 8 | 0.0000 | 0.20\% | 0.17\% | 0.0 | 0.0 | 0\% | 0\% |
| 25-29 | 0 | 240 | 0.0000 | 0.20\% | 0.17\% | 0.5 | 0.4 | 0\% | 0\% |
| 30-34 | 0 | 973 | 0.0000 | 0.25\% | 0.21\% | 2.4 | 2.0 | 0\% | 0\% |
| 35-39 | 2 | 2,150 | 0.0009 | 0.35\% | 0.29\% | 7.4 | 6.3 | 27\% | 32\% |
| 40-44 | 4 | 3,658 | 0.0011 | 0.44\% | 0.38\% | 16.2 | 13.8 | 25\% | 29\% |
| 45-49 | 16 | 5,237 | 0.0031 | 0.54\% | 0.46\% | 28.4 | 24.1 | 56\% | 66\% |
| 50-54 | 29 | 5,708 | 0.0051 | 0.64\% | 0.54\% | 36.5 | 31.0 | 79\% | 93\% |
| 55-59 | 15 | 4,780 | 0.0031 | 0.70\% | 0.60\% | 33.5 | 28.4 | 45\% | 53\% |
| 60-64 | 19 | 3,058 | 0.0062 | 0.70\% | 0.60\% | 21.4 | 18.2 | 89\% | 104\% |
| 65-69 | 2 | 1,231 | 0.0016 | 0.70\% | 0.60\% | 8.6 | 7.3 | 23\% | 27\% |
| 70-74 | 0 | 0 | N/A | 0.00\% |  | 0.0 | 0.0 | 0\% | 0\% |
| Other | 3 | 0 | N/A | 0.00\% |  | 0.0 | 0.0 | 0\% | 0\% |
| Total | 90 | 27,043 |  |  |  | 154.9 | 131.7 | 58\% | 68\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM
ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

|  | TABLE 9B GROUPED |  |  | Assumed Probability $\begin{gathered}\text { 8-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } / \text { (3) } \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 15 | 0.0000 | 0.20\% | 0.14\% | 0.0 | 0.0 | 0\% | 0\% |
| 25-29 | 0 | 427 | 0.0000 | 0.20\% | 0.14\% | 0.9 | 0.6 | 0\% | 0\% |
| 30-34 | 0 | 2,229 | 0.0000 | 0.20\% | 0.14\% | 4.5 | 3.1 | 0\% | 0\% |
| 35-39 | 1 | 4,731 | 0.0002 | 0.22\% | 0.16\% | 10.5 | 7.4 | 9\% | 14\% |
| 40-44 | 6 | 8,957 | 0.0007 | 0.27\% | 0.19\% | 24.4 | 17.1 | 25\% | 35\% |
| 45-49 | 18 | 15,551 | 0.0012 | 0.39\% | 0.27\% | 60.1 | 42.1 | 30\% | 43\% |
| 50-54 | 52 | 20,573 | 0.0025 | 0.58\% | 0.41\% | 119.9 | 83.9 | 43\% | 62\% |
| 55-59 | 73 | 21,727 | 0.0034 | 0.70\% | 0.49\% | 152.1 | 106.5 | 48\% | 69\% |
| 60-64 | 85 | 16,064 | 0.0053 | 0.70\% | 0.49\% | 112.4 | 78.7 | 76\% | 108\% |
| 65-69 | 17 | 6,398 | 0.0027 | 0.70\% | 0.49\% | 44.8 | 31.4 | 38\% | 54\% |
| 70-74 | 0 | 0 | N/A | 0.00\% |  | 0.0 | 0.0 | 0\% | 0\% |
| Other | 5 | 0 | N/A | 0.00\% |  | 0.0 | 0.0 | 0\% | 0\% |
| Total | 257 | 96,672 |  |  |  | 529.6 | 370.7 | 49\% | 69\% |

## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM

 ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN| Plan Year Ending June 30, | TABLE 9C <br> Life Years Exposed | Actual Disabilities | Expected <br> Disabilities | 10-YEAR PERIOD ENDING 6/30/2013 Disability Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual/ Expected | Actual <br> (3) / (2) | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 13,124 | 63 | 72.5 | 87\% | 0.48\% | 0.55\% |
| 2005 | 13,917 | 55 | 76.6 | 72\% | 0.40\% | 0.55\% |
| 2006 | 16,454 | 36 | 89.8 | 40\% | 0.22\% | 0.55\% |
| 2007 | 15,983 | 55 | 87.4 | 63\% | 0.34\% | 0.55\% |
| 2008 | 15,570 | 27 | 86.1 | 31\% | 0.17\% | 0.55\% |
| 2009 | 15,800 | 25 | 88.1 | 28\% | 0.16\% | 0.56\% |
| 2010 | 16,243 | 37 | 90.8 | 41\% | 0.23\% | 0.56\% |
| 2011 | 16,624 | 54 | 93.3 | 58\% | 0.32\% | 0.56\% |
| 2012 | 16,641 | 50 | 93.8 | 53\% | 0.30\% | 0.56\% |
| 2013 | 16,736 | 56 | 94.4 | 59\% | 0.33\% | 0.56\% |
| Total | 157,092 | 458 | 872.7 | 52\% | 0.29\% | 0.56\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM aCcidental disability experience of active members MEN

| Age | TABLE 10A |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Disabilities | Total <br> Exposed |  | Expected | Proposed | $\begin{aligned} & \text { Expected } \\ & \text { (3) x (5) } \\ & \hline \end{aligned}$ | Proposed $(3) \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 16 | 0.0000 | 0.04\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 24 | 0.0000 | 0.04\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 44 | 0.0000 | 0.04\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 55 | 0.0000 | 0.04\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 57 | 0.0000 | 0.04\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 65 | 0.0000 | 0.04\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 26 | 0 | 96 | 0.0000 | 0.04\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 141 | 0.0000 | 0.04\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 28 | 0 | 200 | 0.0000 | 0.04\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 29 | 0 | 212 | 0.0000 | 0.04\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 30 | 0 | 233 | 0.0000 | 0.04\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 31 | 0 | 263 | 0.0000 | 0.04\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 32 | 0 | 275 | 0.0000 | 0.04\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 33 | 0 | 299 | 0.0000 | 0.04\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 34 | 0 | 358 | 0.0000 | 0.04\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 35 | 0 | 390 | 0.0000 | 0.04\% | 0.04\% | 0.2 | 0.2 | 0\% | 0\% |
| 36 | 0 | 378 | 0.0000 | 0.04\% | 0.04\% | 0.2 | 0.2 | 0\% | 0\% |
| 37 | 0 | 425 | 0.0000 | 0.04\% | 0.04\% | 0.2 | 0.2 | 0\% | 0\% |
| 38 | 0 | 401 | 0.0000 | 0.04\% | 0.04\% | 0.2 | 0.2 | 0\% | 0\% |
| 39 | 0 | 438 | 0.0000 | 0.04\% | 0.04\% | 0.2 | 0.2 | 0\% | 0\% |
| 40 | 0 | 501 | 0.0000 | 0.04\% | 0.04\% | 0.2 | 0.2 | 0\% | 0\% |
| 41 | 0 | 494 | 0.0000 | 0.04\% | 0.04\% | 0.2 | 0.2 | 0\% | 0\% |
| 42 | 0 | 541 | 0.0000 | 0.04\% | 0.04\% | 0.2 | 0.2 | 0\% | 0\% |
| 43 | 0 | 592 | 0.0000 | 0.04\% | 0.04\% | 0.2 | 0.2 | 0\% | 0\% |
| 44 | 0 | 595 | 0.0000 | 0.04\% | 0.04\% | 0.2 | 0.2 | 0\% | 0\% |
| 45 | 0 | 627 | 0.0000 | 0.04\% | 0.04\% | 0.3 | 0.3 | 0\% | 0\% |
| 46 | 0 | 642 | 0.0000 | 0.04\% | 0.04\% | 0.3 | 0.3 | 0\% | 0\% |
| 47 | 0 | 666 | 0.0000 | 0.04\% | 0.04\% | 0.3 | 0.3 | 0\% | 0\% |
| 48 | 1 | 713 | 0.0014 | 0.04\% | 0.04\% | 0.3 | 0.3 | 351\% | 351\% |
| 49 | 0 | 740 | 0.0000 | 0.04\% | 0.04\% | 0.3 | 0.3 | 0\% | 0\% |
| 50 | 0 | 769 | 0.0000 | 0.04\% | 0.04\% | 0.3 | 0.3 | 0\% | 0\% |
| 51 | 0 | 766 | 0.0000 | 0.04\% | 0.04\% | 0.3 | 0.3 | 0\% | 0\% |
| 52 | 0 | 738 | 0.0000 | 0.04\% | 0.04\% | 0.3 | 0.3 | 0\% | 0\% |
| 53 | 0 | 719 | 0.0000 | 0.04\% | 0.04\% | 0.3 | 0.3 | 0\% | 0\% |
| 54 | 0 | 713 | 0.0000 | 0.04\% | 0.04\% | 0.3 | 0.3 | 0\% | 0\% |
| 55 | 0 | 694 | 0.0000 | 0.04\% | 0.04\% | 0.3 | 0.3 | 0\% | 0\% |
| 56 | 0 | 662 | 0.0000 | 0.04\% | 0.04\% | 0.3 | 0.3 | 0\% | 0\% |
| 57 | 1 | 646 | 0.0015 | 0.04\% | 0.04\% | 0.3 | 0.3 | 387\% | 387\% |
| 58 | 0 | 591 | 0.0000 | 0.04\% | 0.04\% | 0.2 | 0.2 | 0\% | 0\% |
| 59 | 0 | 560 | 0.0000 | 0.04\% | 0.04\% | 0.2 | 0.2 | 0\% | 0\% |
| 60 | 0 | 534 | 0.0000 | 0.04\% | 0.04\% | 0.2 | 0.2 | 0\% | 0\% |
| 61 | 0 | 483 | 0.0000 | 0.04\% | 0.04\% | 0.2 | 0.2 | 0\% | 0\% |
| 62 | 1 | 414 | 0.0024 | 0.04\% | 0.04\% | 0.2 | 0.2 | 604\% | 604\% |
| 63 | 0 | 329 | 0.0000 | 0.04\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 64 | 0 | 267 | 0.0000 | 0.04\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 65 | 0 | 237 | 0.0000 | 0.04\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 66 | 0 | 192 | 0.0000 | 0.04\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 67 | 0 | 158 | 0.0000 | 0.04\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 68 | 0 | 124 | 0.0000 | 0.04\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 69 | 0 | 104 | 0.0000 | 0.04\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Other | 0 | 3 | 0.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 3 | 20,184 |  |  |  | 8.1 | 8.1 | 37\% | 37\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

|  | TABLE 10B |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 8 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 17 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 40 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 54 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 92 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 142 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 26 | 0 | 198 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 285 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 28 | 0 | 386 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 29 | 0 | 462 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 30 | 0 | 526 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 31 | 0 | 578 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 32 | 1 | 632 | 0.0016 | 0.02\% | 0.02\% | 0.1 | 0.1 | 791\% | 791\% |
| 33 | 0 | 691 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 34 | 0 | 703 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 35 | 0 | 759 | 0.0000 | 0.02\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 36 | 0 | 824 | 0.0000 | 0.02\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 37 | 0 | 911 | 0.0000 | 0.02\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 38 | 0 | 994 | 0.0000 | 0.02\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 39 | 0 | 1,038 | 0.0000 | 0.02\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 40 | 0 | 1,115 | 0.0000 | 0.02\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 41 | 0 | 1,227 | 0.0000 | 0.02\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 42 | 0 | 1,459 | 0.0000 | 0.02\% | 0.02\% | 0.3 | 0.3 | 0\% | 0\% |
| 43 | 0 | 1,680 | 0.0000 | 0.02\% | 0.02\% | 0.3 | 0.3 | 0\% | 0\% |
| 44 | 0 | 1,861 | 0.0000 | 0.02\% | 0.02\% | 0.4 | 0.4 | 0\% | 0\% |
| 45 | 0 | 2,106 | 0.0000 | 0.02\% | 0.02\% | 0.4 | 0.4 | 0\% | 0\% |
| 46 | 1 | 2,175 | 0.0005 | 0.02\% | 0.02\% | 0.4 | 0.4 | 230\% | 230\% |
| 47 | 1 | 2,297 | 0.0004 | 0.02\% | 0.02\% | 0.5 | 0.5 | 218\% | 218\% |
| 48 | 0 | 2,400 | 0.0000 | 0.02\% | 0.02\% | 0.5 | 0.5 | 0\% | 0\% |
| 49 | 1 | 2,558 | 0.0004 | 0.02\% | 0.02\% | 0.5 | 0.5 | 195\% | 195\% |
| 50 | 1 | 2,720 | 0.0004 | 0.02\% | 0.02\% | 0.5 | 0.5 | 184\% | 184\% |
| 51 | 1 | 2,800 | 0.0004 | 0.02\% | 0.02\% | 0.6 | 0.6 | 179\% | 179\% |
| 52 | 0 | 2,874 | 0.0000 | 0.02\% | 0.02\% | 0.6 | 0.6 | 0\% | 0\% |
| 53 | 1 | 2,904 | 0.0003 | 0.02\% | 0.02\% | 0.6 | 0.6 | 172\% | 172\% |
| 54 | 1 | 2,916 | 0.0003 | 0.02\% | 0.02\% | 0.6 | 0.6 | 171\% | 171\% |
| 55 | 1 | 2,906 | 0.0003 | 0.02\% | 0.02\% | 0.6 | 0.6 | 172\% | 172\% |
| 56 | 0 | 2,835 | 0.0000 | 0.02\% | 0.02\% | 0.6 | 0.6 | 0\% | 0\% |
| 57 | 4 | 2,740 | 0.0015 | 0.02\% | 0.02\% | 0.5 | 0.5 | 730\% | 730\% |
| 58 | 0 | 2,596 | 0.0000 | 0.02\% | 0.02\% | 0.5 | 0.5 | 0\% | 0\% |
| 59 | 0 | 2,446 | 0.0000 | 0.02\% | 0.02\% | 0.5 | 0.5 | 0\% | 0\% |
| 60 | 1 | 2,441 | 0.0004 | 0.02\% | 0.02\% | 0.5 | 0.5 | 205\% | 205\% |
| 61 | 2 | 2,280 | 0.0009 | 0.02\% | 0.02\% | 0.5 | 0.5 | 439\% | 439\% |
| 62 | 1 | 2,033 | 0.0005 | 0.02\% | 0.02\% | 0.4 | 0.4 | 246\% | 246\% |
| 63 | 0 | 1,626 | 0.0000 | 0.02\% | 0.02\% | 0.3 | 0.3 | 0\% | 0\% |
| 64 | 0 | 1,316 | 0.0000 | 0.02\% | 0.02\% | 0.3 | 0.3 | 0\% | 0\% |
| 65 | 0 | 1,144 | 0.0000 | 0.02\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 66 | 0 | 915 | 0.0000 | 0.02\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 67 | 1 | 743 | 0.0013 | 0.02\% | 0.02\% | 0.1 | 0.1 | 673\% | 673\% |
| 68 | 0 | 587 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 69 | 0 | 490 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Other | 0 | 5 | 0.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 18 | 69,535 |  |  |  | 13.9 | 13.9 | 129\% | 129\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN

|  | TABLE 10A GROUPED |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2011 <br> Expected Disabilities Actual/ Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } /(\mathbf{3}) \\ & \hline \end{aligned}$ | Expected $(7) /(3)$ | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 196 | 0.0000 | 0.04\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 25-29 | 0 | 714 | 0.0000 | 0.04\% | 0.04\% | 0.3 | 0.3 | 0\% | 0\% |
| 30-34 | 0 | 1,428 | 0.0000 | 0.04\% | 0.04\% | 0.6 | 0.6 | 0\% | 0\% |
| 35-39 | 0 | 2,032 | 0.0000 | 0.04\% | 0.04\% | 0.8 | 0.8 | 0\% | 0\% |
| 40-44 | 0 | 2,723 | 0.0000 | 0.04\% | 0.04\% | 1.1 | 1.1 | 0\% | 0\% |
| 45-49 | 1 | 3,388 | 0.0003 | 0.04\% | 0.04\% | 1.4 | 1.4 | 74\% | 74\% |
| 50-54 | 0 | 3,705 | 0.0000 | 0.04\% | 0.04\% | 1.5 | 1.5 | 0\% | 0\% |
| 55-59 | 1 | 3,153 | 0.0003 | 0.04\% | 0.04\% | 1.3 | 1.3 | 79\% | 79\% |
| 60-64 | 1 | 2,027 | 0.0005 | 0.04\% | 0.04\% | 0.8 | 0.8 | 123\% | 123\% |
| 65-69 | 0 | 815 | 0.0000 | 0.04\% | 0.04\% | 0.3 | 0.3 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A | 0.00\% |  | 0.0 | 0.0 | 0\% | 0\% |
| Other | 0 | 3 | 0.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 3 | 20,184 |  |  |  | 8.1 | 8.1 | 37\% | 37\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

|  | TABLE 10B GROUPED |  |  | Assumed Probability $\quad \begin{gathered}\text { 4-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered} \quad$ Actual/ Expected |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } / \text { (3) } \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 211 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 25-29 | 0 | 1,473 | 0.0000 | 0.02\% | 0.02\% | 0.3 | 0.3 | 0\% | 0\% |
| 30-34 | 1 | 3,130 | 0.0003 | 0.02\% | 0.02\% | 0.6 | 0.6 | 160\% | 160\% |
| 35-39 | 0 | 4,526 | 0.0000 | 0.02\% | 0.02\% | 0.9 | 0.9 | 0\% | 0\% |
| 40-44 | 0 | 7,342 | 0.0000 | 0.02\% | 0.02\% | 1.5 | 1.5 | 0\% | 0\% |
| 45-49 | 3 | 11,536 | 0.0003 | 0.02\% | 0.02\% | 2.3 | 2.3 | 130\% | 130\% |
| 50-54 | 4 | 14,214 | 0.0003 | 0.02\% | 0.02\% | 2.8 | 2.8 | 141\% | 141\% |
| 55-59 | 5 | 13,523 | 0.0004 | 0.02\% | 0.02\% | 2.7 | 2.7 | 185\% | 185\% |
| 60-64 | 4 | 9,696 | 0.0004 | 0.02\% | 0.02\% | 1.9 | 1.9 | 206\% | 206\% |
| 65-69 | 1 | 3,879 | 0.0003 | 0.02\% | 0.02\% | 0.8 | 0.8 | 129\% | 129\% |
| 70-74 | 0 | 0 | N/A | 0.00\% |  | 0.0 | 0.0 | 0\% | 0\% |
| Other | 0 | 5 | 0.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 18 | 69,535 |  |  |  | 13.9 | 13.9 | 129\% | 129\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN

|  | TABLE 10A |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 21 | 0.0000 | 0.04\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 40 | 0.0000 | 0.04\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 69 | 0.0000 | 0.04\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 102 | 0.0000 | 0.04\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 119 | 0.0000 | 0.04\% | 0.04\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 152 | 0.0000 | 0.04\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 26 | 0 | 213 | 0.0000 | 0.04\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 27 | 0 | 295 | 0.0000 | 0.04\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 28 | 0 | 358 | 0.0000 | 0.04\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 29 | 0 | 411 | 0.0000 | 0.04\% | 0.04\% | 0.2 | 0.2 | 0\% | 0\% |
| 30 | 0 | 442 | 0.0000 | 0.04\% | 0.04\% | 0.2 | 0.2 | 0\% | 0\% |
| 31 | 0 | 487 | 0.0000 | 0.04\% | 0.04\% | 0.2 | 0.2 | 0\% | 0\% |
| 32 | 0 | 518 | 0.0000 | 0.04\% | 0.04\% | 0.2 | 0.2 | 0\% | 0\% |
| 33 | 0 | 586 | 0.0000 | 0.04\% | 0.04\% | 0.2 | 0.2 | 0\% | 0\% |
| 34 | 0 | 664 | 0.0000 | 0.04\% | 0.04\% | 0.3 | 0.3 | 0\% | 0\% |
| 35 | 0 | 711 | 0.0000 | 0.04\% | 0.04\% | 0.3 | 0.3 | 0\% | 0\% |
| 36 | 0 | 822 | 0.0000 | 0.04\% | 0.04\% | 0.3 | 0.3 | 0\% | 0\% |
| 37 | 0 | 806 | 0.0000 | 0.04\% | 0.04\% | 0.3 | 0.3 | 0\% | 0\% |
| 38 | 0 | 843 | 0.0000 | 0.04\% | 0.04\% | 0.3 | 0.3 | 0\% | 0\% |
| 39 | 0 | 929 | 0.0000 | 0.04\% | 0.04\% | 0.4 | 0.4 | 0\% | 0\% |
| 40 | 0 | 989 | 0.0000 | 0.04\% | 0.04\% | 0.4 | 0.4 | 0\% | 0\% |
| 41 | 1 | 1,001 | 0.0010 | 0.04\% | 0.04\% | 0.4 | 0.4 | 250\% | 250\% |
| 42 | 0 | 1,115 | 0.0000 | 0.04\% | 0.04\% | 0.4 | 0.4 | 0\% | 0\% |
| 43 | 0 | 1,190 | 0.0000 | 0.04\% | 0.04\% | 0.5 | 0.5 | 0\% | 0\% |
| 44 | 0 | 1,249 | 0.0000 | 0.04\% | 0.04\% | 0.5 | 0.5 | 0\% | 0\% |
| 45 | 0 | 1,319 | 0.0000 | 0.04\% | 0.04\% | 0.5 | 0.5 | 0\% | 0\% |
| 46 | 1 | 1,398 | 0.0007 | 0.04\% | 0.04\% | 0.6 | 0.6 | 179\% | 179\% |
| 47 | 0 | 1,386 | 0.0000 | 0.04\% | 0.04\% | 0.6 | 0.6 | 0\% | 0\% |
| 48 | 1 | 1,427 | 0.0007 | 0.04\% | 0.04\% | 0.6 | 0.6 | 175\% | 175\% |
| 49 | 1 | 1,454 | 0.0007 | 0.04\% | 0.04\% | 0.6 | 0.6 | 172\% | 172\% |
| 50 | 0 | 1,430 | 0.0000 | 0.04\% | 0.04\% | 0.6 | 0.6 | 0\% | 0\% |
| 51 | 2 | 1,437 | 0.0014 | 0.04\% | 0.04\% | 0.6 | 0.6 | 348\% | 348\% |
| 52 | 0 | 1,406 | 0.0000 | 0.04\% | 0.04\% | 0.6 | 0.6 | 0\% | 0\% |
| 53 | 2 | 1,430 | 0.0014 | 0.04\% | 0.04\% | 0.6 | 0.6 | 350\% | 350\% |
| 54 | 0 | 1,374 | 0.0000 | 0.04\% | 0.04\% | 0.5 | 0.5 | 0\% | 0\% |
| 55 | 2 | 1,329 | 0.0015 | 0.04\% | 0.04\% | 0.5 | 0.5 | 376\% | 376\% |
| 56 | 0 | 1,249 | 0.0000 | 0.04\% | 0.04\% | 0.5 | 0.5 | 0\% | 0\% |
| 57 | 2 | 1,174 | 0.0017 | 0.04\% | 0.04\% | 0.5 | 0.5 | 426\% | 426\% |
| 58 | 1 | 1,074 | 0.0009 | 0.04\% | 0.04\% | 0.4 | 0.4 | 233\% | 233\% |
| 59 | 0 | 1,047 | 0.0000 | 0.04\% | 0.04\% | 0.4 | 0.4 | 0\% | 0\% |
| 60 | 0 | 936 | 0.0000 | 0.04\% | 0.04\% | 0.4 | 0.4 | 0\% | 0\% |
| 61 | 0 | 877 | 0.0000 | 0.04\% | 0.04\% | 0.4 | 0.4 | 0\% | 0\% |
| 62 | 1 | 767 | 0.0013 | 0.04\% | 0.04\% | 0.3 | 0.3 | 326\% | 326\% |
| 63 | 0 | 596 | 0.0000 | 0.04\% | 0.04\% | 0.2 | 0.2 | 0\% | 0\% |
| 64 | 0 | 508 | 0.0000 | 0.04\% | 0.04\% | 0.2 | 0.2 | 0\% | 0\% |
| 65 | 0 | 425 | 0.0000 | 0.04\% | 0.04\% | 0.2 | 0.2 | 0\% | 0\% |
| 66 | 1 | 352 | 0.0028 | 0.04\% | 0.04\% | 0.1 | 0.1 | 710\% | 710\% |
| 67 | 0 | 308 | 0.0000 | 0.04\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 68 | 0 | 234 | 0.0000 | 0.04\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 69 | 0 | 194 | 0.0000 | 0.04\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Other | 0 | 6 | 0.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 15 | 39,269 |  |  |  | 15.7 | 15.7 | 96\% | 96\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM aCcidental disability experience of active members WOMEN

|  | TABLE 10B |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 19 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 37 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 66 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 108 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 217 | 0.0000 | 0.02\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 310 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 26 | 0 | 430 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 27 | 0 | 576 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 28 | 0 | 782 | 0.0000 | 0.02\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 29 | 0 | 922 | 0.0000 | 0.02\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 30 | 0 | 1,028 | 0.0000 | 0.02\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 31 | 0 | 1,161 | 0.0000 | 0.02\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 32 | 1 | 1,201 | 0.0008 | 0.02\% | 0.02\% | 0.2 | 0.2 | 416\% | 416\% |
| 33 | 0 | 1,309 | 0.0000 | 0.02\% | 0.02\% | 0.3 | 0.3 | 0\% | 0\% |
| 34 | 0 | 1,434 | 0.0000 | 0.02\% | 0.02\% | 0.3 | 0.3 | 0\% | 0\% |
| 35 | 0 | 1,538 | 0.0000 | 0.02\% | 0.02\% | 0.3 | 0.3 | 0\% | 0\% |
| 36 | 0 | 1,704 | 0.0000 | 0.02\% | 0.02\% | 0.3 | 0.3 | 0\% | 0\% |
| 37 | 0 | 1,838 | 0.0000 | 0.02\% | 0.02\% | 0.4 | 0.4 | 0\% | 0\% |
| 38 | 0 | 2,076 | 0.0000 | 0.02\% | 0.02\% | 0.4 | 0.4 | 0\% | 0\% |
| 39 | 0 | 2,290 | 0.0000 | 0.02\% | 0.02\% | 0.5 | 0.5 | 0\% | 0\% |
| 40 | 0 | 2,506 | 0.0000 | 0.02\% | 0.02\% | 0.5 | 0.5 | 0\% | 0\% |
| 41 | 0 | 2,795 | 0.0000 | 0.02\% | 0.02\% | 0.6 | 0.6 | 0\% | 0\% |
| 42 | 0 | 3,193 | 0.0000 | 0.02\% | 0.02\% | 0.6 | 0.6 | 0\% | 0\% |
| 43 | 0 | 3,558 | 0.0000 | 0.02\% | 0.02\% | 0.7 | 0.7 | 0\% | 0\% |
| 44 | 0 | 3,909 | 0.0000 | 0.02\% | 0.02\% | 0.8 | 0.8 | 0\% | 0\% |
| 45 | 0 | 4,276 | 0.0000 | 0.02\% | 0.02\% | 0.9 | 0.9 | 0\% | 0\% |
| 46 | 1 | 4,518 | 0.0002 | 0.02\% | 0.02\% | 0.9 | 0.9 | 111\% | 111\% |
| 47 | 2 | 4,743 | 0.0004 | 0.02\% | 0.02\% | 0.9 | 0.9 | 211\% | 211\% |
| 48 | 0 | 4,960 | 0.0000 | 0.02\% | 0.02\% | 1.0 | 1.0 | 0\% | 0\% |
| 49 | 1 | 5,138 | 0.0002 | 0.02\% | 0.02\% | 1.0 | 1.0 | 97\% | 97\% |
| 50 | 1 | 5,384 | 0.0002 | 0.02\% | 0.02\% | 1.1 | 1.1 | 93\% | 93\% |
| 51 | 1 | 5,522 | 0.0002 | 0.02\% | 0.02\% | 1.1 | 1.1 | 91\% | 91\% |
| 52 | 0 | 5,614 | 0.0000 | 0.02\% | 0.02\% | 1.1 | 1.1 | 0\% | 0\% |
| 53 | 1 | 5,634 | 0.0002 | 0.02\% | 0.02\% | 1.1 | 1.1 | 89\% | 89\% |
| 54 | 1 | 5,679 | 0.0002 | 0.02\% | 0.02\% | 1.1 | 1.1 | 88\% | 88\% |
| 55 | 3 | 5,545 | 0.0005 | 0.02\% | 0.02\% | 1.1 | 1.1 | 271\% | 271\% |
| 56 | 3 | 5,622 | 0.0005 | 0.02\% | 0.02\% | 1.1 | 1.1 | 267\% | 267\% |
| 57 | 5 | 5,359 | 0.0009 | 0.02\% | 0.02\% | 1.1 | 1.1 | 467\% | 467\% |
| 58 | 3 | 4,999 | 0.0006 | 0.02\% | 0.02\% | 1.0 | 1.0 | 300\% | 300\% |
| 59 | 1 | 4,922 | 0.0002 | 0.02\% | 0.02\% | 1.0 | 1.0 | 102\% | 102\% |
| 60 | 2 | 4,581 | 0.0004 | 0.02\% | 0.02\% | 0.9 | 0.9 | 218\% | 218\% |
| 61 | 3 | 4,312 | 0.0007 | 0.02\% | 0.02\% | 0.9 | 0.9 | 348\% | 348\% |
| 62 | 1 | 3,795 | 0.0003 | 0.02\% | 0.02\% | 0.8 | 0.8 | 132\% | 132\% |
| 63 | 2 | 3,102 | 0.0006 | 0.02\% | 0.02\% | 0.6 | 0.6 | 322\% | 322\% |
| 64 | 0 | 2,464 | 0.0000 | 0.02\% | 0.02\% | 0.5 | 0.5 | 0\% | 0\% |
| 65 | 0 | 2,128 | 0.0000 | 0.02\% | 0.02\% | 0.4 | 0.4 | 0\% | 0\% |
| 66 | 0 | 1,659 | 0.0000 | 0.02\% | 0.02\% | 0.3 | 0.3 | 0\% | 0\% |
| 67 | 2 | 1,340 | 0.0015 | 0.02\% | 0.02\% | 0.3 | 0.3 | 746\% | 746\% |
| 68 | 0 | 1,097 | 0.0000 | 0.02\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 69 | 1 | 899 | 0.0011 | 0.02\% | 0.02\% | 0.2 | 0.2 | 556\% | 556\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Other | 1 | 10 | 0.1000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 36 | 138,309 |  |  |  | 27.7 | 27.7 | 130\% | 130\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN

|  | TABLE 10A GROUPED |  |  | Assumed Probability $\quad \begin{gathered}\text { 8-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered} \quad$ Actual/ Expected |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Disabilities | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } / \text { (3) } \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 351 | 0.0000 | 0.04\% | 0.04\% | 0.1 | 0.1 | 0\% | 0\% |
| 25-29 | 0 | 1,429 | 0.0000 | 0.04\% | 0.04\% | 0.6 | 0.6 | 0\% | 0\% |
| 30-34 | 0 | 2,697 | 0.0000 | 0.04\% | 0.04\% | 1.1 | 1.1 | 0\% | 0\% |
| 35-39 | 0 | 4,111 | 0.0000 | 0.04\% | 0.04\% | 1.6 | 1.6 | 0\% | 0\% |
| 40-44 | 1 | 5,544 | 0.0002 | 0.04\% | 0.04\% | 2.2 | 2.2 | 45\% | 45\% |
| 45-49 | 3 | 6,984 | 0.0004 | 0.04\% | 0.04\% | 2.8 | 2.8 | 107\% | 107\% |
| 50-54 | 4 | 7,077 | 0.0006 | 0.04\% | 0.04\% | 2.8 | 2.8 | 141\% | 141\% |
| 55-59 | 5 | 5,873 | 0.0009 | 0.04\% | 0.04\% | 2.3 | 2.3 | 213\% | 213\% |
| 60-64 | 1 | 3,684 | 0.0003 | 0.04\% | 0.04\% | 1.5 | 1.5 | 68\% | 68\% |
| 65-69 | 1 | 1,513 | 0.0007 | 0.04\% | 0.04\% | 0.6 | 0.6 | 165\% | 165\% |
| 70-74 | 0 | 0 | N/A | 0.00\% |  | 0.0 | 0.0 | 0\% | 0\% |
| Other | 0 | 6 | 0.0000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 15 | 39,269 |  |  |  | 15.7 | 15.7 | 96\% | 96\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS WOMEN

|  | TABLE 10B GROUPED |  |  | Assumed Probability $\quad \begin{gathered}\text { 8-YEAR PERIOD ENDING 6/30/2011 } \\ \text { Expected Disabilities }\end{gathered} \quad$ Actual/ Expected |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Disabilities | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } /(\mathbf{3}) \\ & \hline \end{aligned}$ | Expected $(7) /(3)$ | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 447 | 0.0000 | 0.02\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 25-29 | 0 | 3,020 | 0.0000 | 0.02\% | 0.02\% | 0.6 | 0.6 | 0\% | 0\% |
| 30-34 | 1 | 6,133 | 0.0002 | 0.02\% | 0.02\% | 1.2 | 1.2 | 82\% | 82\% |
| 35-39 | 0 | 9,446 | 0.0000 | 0.02\% | 0.02\% | 1.9 | 1.9 | 0\% | 0\% |
| 40-44 | 0 | 15,961 | 0.0000 | 0.02\% | 0.02\% | 3.2 | 3.2 | 0\% | 0\% |
| 45-49 | 4 | 23,635 | 0.0002 | 0.02\% | 0.02\% | 4.7 | 4.7 | 85\% | 85\% |
| 50-54 | 4 | 27,833 | 0.0001 | 0.02\% | 0.02\% | 5.6 | 5.6 | 72\% | 72\% |
| 55-59 | 15 | 26,447 | 0.0006 | 0.02\% | 0.02\% | 5.3 | 5.3 | 284\% | 284\% |
| 60-64 | 8 | 18,254 | 0.0004 | 0.02\% | 0.02\% | 3.7 | 3.7 | 219\% | 219\% |
| 65-69 | 3 | 7,123 | 0.0004 | 0.02\% | 0.02\% | 1.4 | 1.4 | 211\% | 211\% |
| 70-74 | 0 | 0 | N/A | 0.00\% |  | 0.0 | 0.0 | 0\% | 0\% |
| Other | 1 | 10 | 0.1000 | 0.00\% | 0.00\% | 0.0 | 0.0 | 0\% | 0\% |
| Total | 36 | 138,309 |  |  |  | 27.7 | 27.7 | 130\% | 130\% |

## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM

 ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN| Plan Year Ending June 30, | TABLE 10C |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Disability Rate |  |
|  | Life Years Exposed | Actual Disabilities | Expected Disabilities | Actual/ Expected | $\begin{aligned} & \hline \text { Actual } \\ & \text { (3) / (2) } \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 21,879 | 11 | 5.3 | 206\% | 0.05\% | 0.02\% |
| 2005 | 20,816 | 3 | 5.1 | 59\% | 0.01\% | 0.02\% |
| 2006 | 22,417 | 2 | 5.5 | 37\% | 0.01\% | 0.02\% |
| 2007 | 22,747 | 16 | 5.6 | 288\% | 0.07\% | 0.02\% |
| 2008 | 21,830 | 3 | 5.3 | 56\% | 0.01\% | 0.02\% |
| 2009 | 22,588 | 8 | 5.5 | 144\% | 0.04\% | 0.02\% |
| 2010 | 22,668 | 5 | 5.6 | 90\% | 0.02\% | 0.02\% |
| 2011 | 22,633 | 8 | 5.6 | 144\% | 0.04\% | 0.02\% |
| 2012 | 22,450 | 10 | 5.5 | 181\% | 0.04\% | 0.02\% |
| 2013 | 26,966 | 0 | 6.7 | 0\% | 0.00\% | 0.02\% |
| Total | 226,994 | 66 | 55.6 | 119\% | 0.03\% | 0.02\% |

## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM

TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

TABLE 11A

| Service | Life Years <br> Exposed | Total Salary BOY |  | Actual Salary EOY |  | Expected Salary EOY |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 6,229 | \$ | 180,852,356 | \$ | 201,179,738 | \$ | 197,129,068 | 125\% | 11.24\% | 9.00\% |
| 1 | 4,342 |  | 162,321,103 |  | 167,301,453 |  | 175,306,791 | 38\% | 3.07\% | 8.00\% |
| 2 | 5,394 |  | 205,232,905 |  | 210,773,540 |  | 219,599,208 | 39\% | 2.70\% | 7.00\% |
| 3 | 4,497 |  | 167,363,601 |  | 170,077,492 |  | 177,405,417 | 27\% | 1.62\% | 6.00\% |
| 4 | 5,650 |  | 226,533,891 |  | 230,108,158 |  | 238,993,255 | 29\% | 1.58\% | 5.50\% |
| 5 | 4,679 |  | 187,511,733 |  | 189,108,531 |  | 196,887,320 | 17\% | 0.85\% | 5.00\% |
| 6 | 5,020 |  | 200,075,421 |  | 201,145,614 |  | 209,879,117 | 11\% | 0.53\% | 4.90\% |
| 7 | 4,304 |  | 170,375,674 |  | 171,312,396 |  | 178,553,706 | 11\% | 0.55\% | 4.80\% |
| 8 | 4,601 |  | 171,346,717 |  | 172,830,257 |  | 179,400,013 | 18\% | 0.87\% | 4.70\% |
| 9 | 4,095 |  | 147,331,727 |  | 147,670,062 |  | 154,108,986 | 5\% | 0.23\% | 4.60\% |
| 10 | 4,907 |  | 168,635,522 |  | 168,948,242 |  | 176,224,120 | 4\% | 0.19\% | 4.50\% |
| 11 | 4,377 |  | 146,251,079 |  | 146,206,895 |  | 152,832,378 | -1\% | -0.03\% | 4.50\% |
| 12 | 4,491 |  | 158,401,862 |  | 159,159,263 |  | 165,529,946 | 11\% | 0.48\% | 4.50\% |
| 13 | 3,300 |  | 117,874,515 |  | 119,393,189 |  | 123,178,868 | 29\% | 1.29\% | 4.50\% |
| 14 | 2,870 |  | 108,488,198 |  | 109,558,610 |  | 113,370,167 | 22\% | 0.99\% | 4.50\% |
| 15 | 2,257 |  | 87,814,227 |  | 89,024,303 |  | 91,765,867 | 31\% | 1.38\% | 4.50\% |
| 16 | 2,183 |  | 82,960,596 |  | 83,340,116 |  | 86,652,343 | 10\% | 0.46\% | 4.45\% |
| 17 | 1,828 |  | 69,017,291 |  | 69,430,674 |  | 72,054,052 | 14\% | 0.60\% | 4.40\% |
| 18 | 1,852 |  | 73,410,673 |  | 74,168,602 |  | 76,604,037 | 24\% | 1.03\% | 4.35\% |
| 19 | 1,400 |  | 60,670,558 |  | 61,033,817 |  | 63,279,392 | 14\% | 0.60\% | 4.30\% |
| 20 | 1,664 |  | 74,510,175 |  | 74,479,994 |  | 77,676,857 | -1\% | -0.04\% | 4.25\% |
| 21 | 1,569 |  | 72,660,269 |  | 72,994,862 |  | 75,712,000 | 11\% | 0.46\% | 4.20\% |
| 22 | 1,662 |  | 81,330,396 |  | 81,323,299 |  | 84,705,607 | 0\% | -0.01\% | 4.15\% |
| 23 | 1,141 |  | 56,658,854 |  | 57,388,692 |  | 58,981,867 | 31\% | 1.29\% | 4.10\% |
| 24 | 972 |  | 54,034,738 |  | 54,675,630 |  | 56,223,145 | 29\% | 1.19\% | 4.05\% |
| 25 | 714 |  | 42,468,697 |  | 42,639,156 |  | 44,167,445 | 10\% | 0.40\% | 4.00\% |
| 26 | 621 |  | 37,818,332 |  | 38,175,220 |  | 39,331,065 | 24\% | 0.94\% | 4.00\% |
| 27 | 462 |  | 29,388,377 |  | 29,545,387 |  | 30,563,912 | 13\% | 0.53\% | 4.00\% |
| 28 | 451 |  | 29,939,406 |  | 30,114,463 |  | 31,136,982 | 15\% | 0.58\% | 4.00\% |
| 29 | 286 |  | 20,088,378 |  | 20,137,900 |  | 20,891,913 | 6\% | 0.25\% | 4.00\% |
| 30+ | 298 |  | 21,202,095 |  | 21,381,783 |  | 22,050,179 | 21\% | 0.85\% | 4.00\% |
| Total | 88,116 |  | 3,412,569,366 |  | 3,464,627,338 |  | 3,590,195,025 | 29\% | 1.53\% | 5.21\% |

## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM

TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

TABLE 11A 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years <br> Exposed | Total Salary BOY |  | Actual Salary EOY |  | Proposed Salary EOY |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 6,229 | \$ | 180,852,356 | \$ | 201,179,738 | \$ | 197,129,068 | 125\% | 11.24\% | 9.00\% |
| 1 | 4,342 |  | 162,321,103 |  | 167,301,453 |  | 175,306,791 | 38\% | 3.07\% | 8.00\% |
| 2 | 5,394 |  | 205,232,905 |  | 210,773,540 |  | 216,520,715 | 49\% | 2.70\% | 5.50\% |
| 3 | 4,497 |  | 167,363,601 |  | 170,077,492 |  | 177,405,417 | 27\% | 1.62\% | 6.00\% |
| 4 | 5,650 |  | 226,533,891 |  | 230,108,158 |  | 238,993,255 | 29\% | 1.58\% | 5.50\% |
| 5 | 4,679 |  | 187,511,733 |  | 189,108,531 |  | 196,887,320 | 17\% | 0.85\% | 5.00\% |
| 6 | 5,020 |  | 200,075,421 |  | 201,145,614 |  | 207,678,287 | 14\% | 0.53\% | 3.80\% |
| 7 | 4,304 |  | 170,375,674 |  | 171,312,396 |  | 176,509,198 | 15\% | 0.55\% | 3.60\% |
| 8 | 4,601 |  | 171,346,717 |  | 172,830,257 |  | 177,172,505 | 25\% | 0.87\% | 3.40\% |
| 9 | 4,095 |  | 147,331,727 |  | 147,670,062 |  | 152,046,342 | 7\% | 0.23\% | 3.20\% |
| 10 | 4,907 |  | 168,635,522 |  | 168,948,242 |  | 173,694,588 | 6\% | 0.19\% | 3.00\% |
| 11 | 4,377 |  | 146,251,079 |  | 146,206,895 |  | 150,638,611 | -1\% | -0.03\% | 3.00\% |
| 12 | 4,491 |  | 158,401,862 |  | 159,159,263 |  | 163,153,918 | 16\% | 0.48\% | 3.00\% |
| 13 | 3,300 |  | 117,874,515 |  | 119,393,189 |  | 121,410,750 | 43\% | 1.29\% | 3.00\% |
| 14 | 2,870 |  | 108,488,198 |  | 109,558,610 |  | 111,742,844 | 33\% | 0.99\% | 3.00\% |
| 15 | 2,257 |  | 87,814,227 |  | 89,024,303 |  | 90,448,654 | 46\% | 1.38\% | 3.00\% |
| 16 | 2,183 |  | 82,960,596 |  | 83,340,116 |  | 85,449,414 | 15\% | 0.46\% | 3.00\% |
| 17 | 1,828 |  | 69,017,291 |  | 69,430,674 |  | 71,087,810 | 20\% | 0.60\% | 3.00\% |
| 18 | 1,852 |  | 73,410,673 |  | 74,168,602 |  | 75,612,993 | 34\% | 1.03\% | 3.00\% |
| 19 | 1,400 |  | 60,670,558 |  | 61,033,817 |  | 62,490,675 | 20\% | 0.60\% | 3.00\% |
| 20 | 1,664 |  | 74,510,175 |  | 74,479,994 |  | 77,490,582 | -1\% | -0.04\% | 4.00\% |
| 21 | 1,569 |  | 72,660,269 |  | 72,994,862 |  | 75,566,680 | 12\% | 0.46\% | 4.00\% |
| 22 | 1,662 |  | 81,330,396 |  | 81,323,299 |  | 84,583,612 | 0\% | -0.01\% | 4.00\% |
| 23 | 1,141 |  | 56,658,854 |  | 57,388,692 |  | 58,925,208 | 32\% | 1.29\% | 4.00\% |
| 24 | 972 |  | 54,034,738 |  | 54,675,630 |  | 56,196,128 | 30\% | 1.19\% | 4.00\% |
| 25 | 714 |  | 42,468,697 |  | 42,639,156 |  | 44,167,445 | 10\% | 0.40\% | 4.00\% |
| 26 | 621 |  | 37,818,332 |  | 38,175,220 |  | 39,331,065 | 24\% | 0.94\% | 4.00\% |
| 27 | 462 |  | 29,388,377 |  | 29,545,387 |  | 30,563,912 | 13\% | 0.53\% | 4.00\% |
| 28 | 451 |  | 29,939,406 |  | 30,114,463 |  | 31,136,982 | 15\% | 0.58\% | 4.00\% |
| 29 | 286 |  | 20,088,378 |  | 20,137,900 |  | 20,891,913 | 6\% | 0.25\% | 4.00\% |
| 30+ | 298 |  | 21,202,095 |  | 21,381,783 |  | 22,050,179 | 21\% | 0.85\% | 4.00\% |
| Total | 88,116 |  | 3,412,569,366 |  | 3,464,627,338 |  | 3,562,282,861 | 35\% | 1.53\% | 4.39\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM
MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS
MEN AND WOMEN

TABLE 11B
4-YEAR PERIOD ENDING 6/30/2013


The rates for expected merit salary increases are based on actual rates of increase for total salary, adjusted for inflation of $1.71 \%$.
Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM
MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Service | Life Years Exposed | Total Salary BOY |  | Estimated Actual Merit Salary EOY |  | Proposed Merit Salary EOY |  | Actual / <br> Proposed | Increase \% |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed |  |  | \% |
| (1) | (2) |  | (3) |  |  |  | (4) |  |  | (5) | (6) | (7) | (8) |  |
| 0 | 6,229 | \$ | 180,852,356 | \$ | 199,647,012 | \$ | 191,703,497 | 173\% | 10.39\% |  | 6.00\% |
| 1 | 4,342 |  | 162,321,103 |  | 165,925,780 |  | 170,437,158 | 44\% | 2.22\% |  | 5.00\% |
| 2 | 5,394 |  | 205,232,905 |  | 209,034,189 |  | 210,363,728 | 74\% | 1.85\% |  | 2.50\% |
| 3 | 4,497 |  | 167,363,601 |  | 168,659,084 |  | 172,384,509 | 26\% | 0.77\% |  | 3.00\% |
| 4 | 5,650 |  | 226,533,891 |  | 228,188,281 |  | 232,197,238 | 29\% | 0.73\% |  | 2.50\% |
| 5 | 4,679 |  | 187,511,733 |  | 187,519,367 |  | 191,261,968 | 0\% | 0.00\% |  | 2.00\% |
| 6 | 5,020 |  | 200,075,421 |  | 199,449,972 |  | 201,676,024 | -39\% | -0.31\% |  | 0.80\% |
| 7 | 4,304 |  | 170,375,674 |  | 169,868,460 |  | 171,397,928 | -50\% | -0.30\% |  | 0.60\% |
| 8 | 4,601 |  | 171,346,717 |  | 171,378,092 |  | 172,032,104 | 5\% | 0.02\% |  | 0.40\% |
| 9 | 4,095 |  | 147,331,727 |  | 146,421,424 |  | 147,626,390 | -309\% | -0.62\% |  | 0.20\% |
| 10 | 4,907 |  | 168,635,522 |  | 167,519,054 |  | 168,635,522 |  | -0.66\% |  | 0.00\% |
| 11 | 4,377 |  | 146,251,079 |  | 144,967,415 |  | 146,251,079 |  | -0.88\% |  | 0.00\% |
| 12 | 4,491 |  | 158,401,862 |  | 157,816,805 |  | 158,401,862 |  | -0.37\% |  | 0.00\% |
| 13 | 3,300 |  | 117,874,515 |  | 118,394,201 |  | 117,874,515 |  | 0.44\% |  | 0.00\% |
| 14 | 2,870 |  | 108,488,198 |  | 108,639,171 |  | 108,488,198 |  | 0.14\% |  | 0.00\% |
| 15 | 2,257 |  | 87,814,227 |  | 88,280,076 |  | 87,814,227 |  | 0.53\% |  | 0.00\% |
| 16 | 2,183 |  | 82,960,596 |  | 82,637,024 |  | 82,960,596 |  | -0.39\% |  | 0.00\% |
| 17 | 1,828 |  | 69,017,291 |  | 68,845,752 |  | 69,017,291 |  | -0.25\% |  | 0.00\% |
| 18 | 1,852 |  | 73,410,673 |  | 73,546,446 |  | 73,410,673 |  | 0.18\% |  | 0.00\% |
| 19 | 1,400 |  | 60,670,558 |  | 60,519,633 |  | 60,670,558 |  | -0.25\% |  | 0.00\% |
| 20 | 1,664 |  | 74,510,175 |  | 73,848,519 |  | 75,255,277 | -89\% | -0.89\% |  | 1.00\% |
| 21 | 1,569 |  | 72,660,269 |  | 72,379,065 |  | 73,386,872 | -39\% | -0.39\% |  | 1.00\% |
| 22 | 1,662 |  | 81,330,396 |  | 80,634,023 |  | 82,143,700 | -86\% | -0.86\% |  | 1.00\% |
| 23 | 1,141 |  | 56,658,854 |  | 56,908,508 |  | 57,225,443 | 44\% | 0.44\% |  | 1.00\% |
| 24 | 972 |  | 54,034,738 |  | 54,217,685 |  | 54,575,085 | 34\% | 0.34\% |  | 1.00\% |
| 25 | 714 |  | 42,468,697 |  | 42,279,233 |  | 42,893,384 | -45\% | -0.45\% |  | 1.00\% |
| 26 | 621 |  | 37,818,332 |  | 37,854,709 |  | 38,196,515 | 10\% | 0.10\% |  | 1.00\% |
| 27 | 462 |  | 29,388,377 |  | 29,296,320 |  | 29,682,261 | -31\% | -0.31\% |  | 1.00\% |
| 28 | 451 |  | 29,939,406 |  | 29,860,726 |  | 30,238,800 | -26\% | -0.26\% |  | 1.00\% |
| 29 | 286 |  | 20,088,378 |  | 19,967,651 |  | 20,289,262 | -60\% | -0.60\% |  | 1.00\% |
| 30+ | 298 |  | 21,202,095 |  | 21,202,095 |  | 21,414,116 |  | 0.00\% |  | 1.00\% |
| Total | 88,116 |  | 3,412,569,366 |  | 3,435,705,773 |  | 3,459,905,780 | 49\% | 0.68\% |  | 1.39\% |

TABLE 11B

4-YEAR PERIOD ENDING 6/30/2013

[^20]
## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM

TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS

## MEN AND WOMEN

TABLE 11A

| Service | Life Years Exposed |  |  | Actual Salary EOY |  | $\begin{gathered} \text { Expected Salary } \\ \text { EOY } \\ \hline \end{gathered}$ |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total Salary BOY |  |  |  | Actual \% | Expected \% |  |
| (1) | (2) |  | (3) |  | (4) |  |  |  | (5) | (6) | (7) | (8) |
| 0 | 10,073 | \$ | 284,117,355 | \$ | 317,142,935 | \$ | 309,687,917 | 129\% | 11.62\% | 9.00\% |
| 1 | 13,161 |  | 430,730,784 |  | 460,420,104 |  | 465,189,247 | 86\% | 6.89\% | 8.00\% |
| 2 | 14,019 |  | 466,422,834 |  | 489,897,348 |  | 499,072,432 | 72\% | 5.03\% | 7.00\% |
| 3 | 13,188 |  | 426,202,996 |  | 446,207,723 |  | 451,775,176 | 78\% | 4.69\% | 6.00\% |
| 4 | 14,284 |  | 473,442,796 |  | 491,710,162 |  | 499,482,150 | 70\% | 3.86\% | 5.50\% |
| 5 | 12,962 |  | 419,232,758 |  | 434,487,970 |  | 440,194,396 | 73\% | 3.64\% | 5.00\% |
| 6 | 13,033 |  | 425,919,517 |  | 439,523,346 |  | 446,789,573 | 65\% | 3.19\% | 4.90\% |
| 7 | 11,785 |  | 385,114,433 |  | 397,721,046 |  | 403,599,926 | 68\% | $3.27 \%$ | 4.80\% |
| 8 | 11,353 |  | 370,517,528 |  | 382,458,324 |  | 387,931,852 | 69\% | 3.22\% | 4.70\% |
| 9 | 10,103 |  | 325,231,803 |  | 334,170,034 |  | 340,192,466 | 60\% | 2.75\% | 4.60\% |
| 10 | 10,252 |  | 330,138,284 |  | 338,253,846 |  | 344,994,507 | 55\% | 2.46\% | 4.50\% |
| 11 | 8,933 |  | 287,802,991 |  | 294,531,970 |  | 300,754,126 | 52\% | 2.34\% | 4.50\% |
| 12 | 8,509 |  | 281,158,419 |  | 287,988,301 |  | 293,810,548 | 54\% | 2.43\% | 4.50\% |
| 13 | 7,157 |  | 239,814,857 |  | 246,349,894 |  | 250,606,526 | 61\% | 2.73\% | 4.50\% |
| 14 | 7,034 |  | 243,338,673 |  | 249,546,169 |  | 254,288,913 | 57\% | 2.55\% | 4.50\% |
| 15 | 6,220 |  | 221,743,785 |  | 228,917,424 |  | 231,722,255 | 72\% | 3.24\% | 4.50\% |
| 16 | 5,708 |  | 208,684,150 |  | 214,914,622 |  | 217,970,595 | 67\% | 2.99\% | 4.45\% |
| 17 | 5,008 |  | 190,027,437 |  | 196,217,945 |  | 198,388,644 | 74\% | 3.26\% | 4.40\% |
| 18 | 4,786 |  | 191,807,127 |  | 197,759,392 |  | 200,150,737 | 71\% | 3.10\% | 4.35\% |
| 19 | 4,047 |  | 170,801,747 |  | 175,915,601 |  | 178,146,222 | 70\% | 2.99\% | 4.30\% |
| 20 | 3,624 |  | 162,861,636 |  | 166,877,458 |  | 169,783,256 | 58\% | 2.47\% | 4.25\% |
| 21 | 3,084 |  | 145,461,474 |  | 148,917,310 |  | 151,570,856 | 57\% | 2.38\% | 4.20\% |
| 22 | 2,878 |  | 142,116,443 |  | 144,852,252 |  | 148,014,275 | 46\% | 1.93\% | 4.15\% |
| 23 | 2,187 |  | 112,527,475 |  | 115,450,175 |  | 117,141,101 | 63\% | 2.60\% | 4.10\% |
| 24 | 1,835 |  | 101,965,318 |  | 104,769,569 |  | 106,094,913 | 68\% | 2.75\% | 4.05\% |
| 25 | 1,351 |  | 79,524,517 |  | 81,334,943 |  | 82,705,498 | 57\% | 2.28\% | 4.00\% |
| 26 | 1,170 |  | 70,607,787 |  | 72,293,465 |  | 73,432,098 | 60\% | 2.39\% | 4.00\% |
| 27 | 913 |  | 57,418,470 |  | 59,099,070 |  | 59,715,209 | 73\% | 2.93\% | 4.00\% |
| 28 | 863 |  | 56,634,073 |  | 57,958,217 |  | 58,899,436 | 58\% | 2.34\% | 4.00\% |
| 29 | 623 |  | 41,264,932 |  | 42,140,641 |  | 42,915,529 | 53\% | 2.12\% | 4.00\% |
| 30+ | 657 |  | 41,191,822 |  | 42,322,024 |  | 42,839,495 | 69\% | 2.74\% | 4.00\% |
| Total | 210,800 |  | 7,383,824,221 |  | 7,660,149,280 |  | 7,767,859,874 | 72\% | 3.74\% | 5.20\% |

## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM

TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS

## MEN AND WOMEN

TABLE 11A

| Service | Life Years Exposed | Total Salary BOY |  | Actual Salary EOY |  | Proposed SalaryEOY |  | Actual / <br> Proposed | Increase \% |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed |  |  | \% |
| (1) | (2) |  | (3) |  |  |  | (4) |  |  | (5) | (6) | (7) | (8) |  |
| 0 | 10,073 | \$ | 284,117,355 | \$ | 317,142,935 | \$ | 309,687,917 | 129\% | 11.62\% |  | 9.00\% |
| 1 | 13,161 |  | 430,730,784 |  | 460,420,104 |  | 465,189,247 | 86\% | 6.89\% |  | 8.00\% |
| 2 | 14,019 |  | 466,422,834 |  | 489,897,348 |  | 492,076,090 | 92\% | 5.03\% |  | 5.50\% |
| 3 | 13,188 |  | 426,202,996 |  | 446,207,723 |  | 451,775,176 | 78\% | 4.69\% |  | 6.00\% |
| 4 | 14,284 |  | 473,442,796 |  | 491,710,162 |  | 499,482,150 | 70\% | 3.86\% |  | 5.50\% |
| 5 | 12,962 |  | 419,232,758 |  | 434,487,970 |  | 440,194,396 | 73\% | 3.64\% |  | 5.00\% |
| 6 | 13,033 |  | 425,919,517 |  | 439,523,346 |  | 442,104,459 | 84\% | 3.19\% |  | 3.80\% |
| 7 | 11,785 |  | 385,114,433 |  | 397,721,046 |  | 398,978,553 | 91\% | 3.27\% |  | 3.60\% |
| 8 | 11,353 |  | 370,517,528 |  | 382,458,324 |  | 383,115,124 | 95\% | 3.22\% |  | 3.40\% |
| 9 | 10,103 |  | 325,231,803 |  | 334,170,034 |  | 335,639,221 | 86\% | 2.75\% |  | 3.20\% |
| 10 | 10,252 |  | 330,138,284 |  | 338,253,846 |  | 340,042,433 | 82\% | 2.46\% |  | 3.00\% |
| 11 | 8,933 |  | 287,802,991 |  | 294,531,970 |  | 296,437,081 | 78\% | 2.34\% |  | 3.00\% |
| 12 | 8,509 |  | 281,158,419 |  | 287,988,301 |  | 289,593,172 | 81\% | 2.43\% |  | 3.00\% |
| 13 | 7,157 |  | 239,814,857 |  | 246,349,894 |  | 247,009,303 | 91\% | 2.73\% |  | 3.00\% |
| 14 | 7,034 |  | 243,338,673 |  | 249,546,169 |  | 250,638,833 | 85\% | 2.55\% |  | 3.00\% |
| 15 | 6,220 |  | 221,743,785 |  | 228,917,424 |  | 228,396,099 | 108\% | 3.24\% |  | 3.00\% |
| 16 | 5,708 |  | 208,684,150 |  | 214,914,622 |  | 214,944,675 | 100\% | 2.99\% |  | 3.00\% |
| 17 | 5,008 |  | 190,027,437 |  | 196,217,945 |  | 195,728,260 | 109\% | 3.26\% |  | 3.00\% |
| 18 | 4,786 |  | 191,807,127 |  | 197,759,392 |  | 197,561,341 | 103\% | 3.10\% |  | 3.00\% |
| 19 | 4,047 |  | 170,801,747 |  | 175,915,601 |  | 175,925,799 | 100\% | 2.99\% |  | 3.00\% |
| 20 | 3,624 |  | 162,861,636 |  | 166,877,458 |  | 169,376,101 | 62\% | 2.47\% |  | 4.00\% |
| 21 | 3,084 |  | 145,461,474 |  | 148,917,310 |  | 151,279,933 | 59\% | 2.38\% |  | 4.00\% |
| 22 | 2,878 |  | 142,116,443 |  | 144,852,252 |  | 147,801,101 | 48\% | 1.93\% |  | 4.00\% |
| 23 | 2,187 |  | 112,527,475 |  | 115,450,175 |  | 117,028,574 | 65\% | 2.60\% |  | 4.00\% |
| 24 | 1,835 |  | 101,965,318 |  | 104,769,569 |  | 106,043,931 | 69\% | 2.75\% |  | 4.00\% |
| 25 | 1,351 |  | 79,524,517 |  | 81,334,943 |  | 82,705,498 | 57\% | 2.28\% |  | 4.00\% |
| 26 | 1,170 |  | 70,607,787 |  | 72,293,465 |  | 73,432,098 | 60\% | 2.39\% |  | 4.00\% |
| 27 | 913 |  | 57,418,470 |  | 59,099,070 |  | 59,715,209 | 73\% | 2.93\% |  | 4.00\% |
| 28 | 863 |  | 56,634,073 |  | 57,958,217 |  | 58,899,436 | 58\% | 2.34\% |  | 4.00\% |
| 29 | 623 |  | 41,264,932 |  | 42,140,641 |  | 42,915,529 | 53\% | 2.12\% |  | 4.00\% |
| 30+ | 657 |  | 41,191,822 |  | 42,322,024 |  | 42,839,495 | 69\% | 2.74\% |  | 4.00\% |
| Total | 210,800 |  | 7,383,824,221 |  | 7,660,149,280 |  | 7,706,556,230 | 86\% | 3.74\% |  | 4.37\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM
MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

TABLE 11B

| Service | Life Years <br> Exposed | Total Salary BOY |  | Estimated Actual Merit Salary EOY |  |  |  |  | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | ected Merit <br> alary EOY | Actual / Expected | Actual \% | Expected \% |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 10,073 | \$ | 284,117,355 | \$ | 304,755,343 | \$ | 301,164,396 | 121\% | 7.26\% | 6.00\% |
| 1 | 13,161 |  | 430,730,784 |  | 447,802,721 |  | 452,267,323 | 79\% | 3.96\% | 5.00\% |
| 2 | 14,019 |  | 466,422,834 |  | 479,865,653 |  | 485,079,747 | 72\% | 2.88\% | 4.00\% |
| 3 | 13,188 |  | 426,202,996 |  | 436,058,033 |  | 438,989,086 | 77\% | 2.31\% | 3.00\% |
| 4 | 14,284 |  | 473,442,796 |  | 482,984,667 |  | 485,278,866 | 81\% | 2.02\% | 2.50\% |
| 5 | 12,962 |  | 419,232,758 |  | 426,259,166 |  | 427,617,413 | 84\% | 1.68\% | 2.00\% |
| 6 | 13,033 |  | 425,919,517 |  | 431,002,856 |  | 434,011,988 | 63\% | 1.19\% | 1.90\% |
| 7 | 11,785 |  | 385,114,433 |  | 389,218,783 |  | 392,046,493 | 59\% | 1.07\% | 1.80\% |
| 8 | 11,353 |  | 370,517,528 |  | 373,979,954 |  | 376,816,326 | 55\% | 0.93\% | 1.70\% |
| 9 | 10,103 |  | 325,231,803 |  | 327,296,509 |  | 330,435,512 | 40\% | 0.63\% | 1.60\% |
| 10 | 10,252 |  | 330,138,284 |  | 332,673,712 |  | 335,090,358 | 51\% | 0.77\% | 1.50\% |
| 11 | 8,933 |  | 287,802,991 |  | 289,676,198 |  | 292,120,036 | 43\% | 0.65\% | 1.50\% |
| 12 | 8,509 |  | 281,158,419 |  | 283,563,219 |  | 285,375,795 | 57\% | 0.86\% | 1.50\% |
| 13 | 7,157 |  | 239,814,857 |  | 241,108,692 |  | 243,412,080 | 36\% | 0.54\% | 1.50\% |
| 14 | 7,034 |  | 243,338,673 |  | 245,127,316 |  | 246,988,753 | 49\% | 0.74\% | 1.50\% |
| 15 | 6,220 |  | 221,743,785 |  | 223,338,014 |  | 225,069,942 | 48\% | 0.72\% | 1.50\% |
| 16 | 5,708 |  | 208,684,150 |  | 210,362,122 |  | 211,710,070 | 55\% | 0.80\% | 1.45\% |
| 17 | 5,008 |  | 190,027,437 |  | 191,386,013 |  | 192,687,821 | 51\% | 0.71\% | 1.40\% |
| 18 | 4,786 |  | 191,807,127 |  | 193,261,495 |  | 194,396,523 | 56\% | 0.76\% | 1.35\% |
| 19 | 4,047 |  | 170,801,747 |  | 171,748,152 |  | 173,022,170 | 43\% | 0.55\% | 1.30\% |
| 20 | 3,624 |  | 162,861,636 |  | 164,025,547 |  | 164,897,406 | 57\% | 0.71\% | 1.25\% |
| 21 | 3,084 |  | 145,461,474 |  | 146,307,707 |  | 147,207,012 | 48\% | 0.58\% | 1.20\% |
| 22 | 2,878 |  | 142,116,443 |  | 142,764,877 |  | 143,750,782 | 40\% | 0.46\% | 1.15\% |
| 23 | 2,187 |  | 112,527,475 |  | 113,146,990 |  | 113,765,277 | 50\% | 0.55\% | 1.10\% |
| 24 | 1,835 |  | 101,965,318 |  | 102,935,397 |  | 103,035,954 | 91\% | 0.95\% | 1.05\% |
| 25 | 1,351 |  | 79,524,517 |  | 79,979,774 |  | 80,319,762 | 57\% | 0.57\% | 1.00\% |
| 26 | 1,170 |  | 70,607,787 |  | 70,607,787 |  | 71,313,865 |  | 0.00\% | 1.00\% |
| 27 | 913 |  | 57,418,470 |  | 57,418,470 |  | 57,992,655 |  | 0.00\% | 1.00\% |
| 28 | 863 |  | 56,634,073 |  | 56,634,073 |  | 57,200,414 |  | 0.00\% | 1.00\% |
| 29 | 623 |  | 41,264,932 |  | 41,264,932 |  | 41,677,581 |  | 0.00\% | 1.00\% |
| 30+ | 657 |  | 41,191,822 |  | 41,191,822 |  | 41,603,740 |  | 0.00\% | 1.00\% |
| Total | 210,800 |  | 7,383,824,221 |  | 7,497,745,998 |  | 7,546,345,147 | 70\% | 1.54\% | 2.20\% |

[^21]NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM
MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

TABLE 11B

| Service | Life Years <br> Exposed | Total Salary BOY |  | Estimated Actual Merit Salary EOY |  |  |  |  | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | posed Merit <br> alary EOY | Actual / Proposed | Actual \% | Proposed \% |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 10,073 | \$ | 284,117,355 | \$ | 304,755,343 | \$ | 301,164,396 | 121\% | 7.26\% | 6.00\% |
| 1 | 13,161 |  | 430,730,784 |  | 447,802,721 |  | 452,267,323 | 79\% | 3.96\% | 5.00\% |
| 2 | 14,019 |  | 466,422,834 |  | 479,865,653 |  | 478,083,405 | 115\% | 2.88\% | 2.50\% |
| 3 | 13,188 |  | 426,202,996 |  | 436,058,033 |  | 438,989,086 | 77\% | 2.31\% | 3.00\% |
| 4 | 14,284 |  | 473,442,796 |  | 482,984,667 |  | 485,278,866 | 81\% | 2.02\% | 2.50\% |
| 5 | 12,962 |  | 419,232,758 |  | 426,259,166 |  | 427,617,413 | 84\% | 1.68\% | 2.00\% |
| 6 | 13,033 |  | 425,919,517 |  | 431,002,856 |  | 429,326,873 | 149\% | 1.19\% | 0.80\% |
| 7 | 11,785 |  | 385,114,433 |  | 389,218,783 |  | 387,425,120 | 178\% | 1.07\% | 0.60\% |
| 8 | 11,353 |  | 370,517,528 |  | 373,979,954 |  | 371,999,598 | 234\% | 0.93\% | 0.40\% |
| 9 | 10,103 |  | 325,231,803 |  | 327,296,509 |  | 325,882,267 | 317\% | 0.63\% | 0.20\% |
| 10 | 10,252 |  | 330,138,284 |  | 332,673,712 |  | 330,138,284 |  | 0.77\% | 0.00\% |
| 11 | 8,933 |  | 287,802,991 |  | 289,676,198 |  | 287,802,991 |  | 0.65\% | 0.00\% |
| 12 | 8,509 |  | 281,158,419 |  | 283,563,219 |  | 281,158,419 |  | 0.86\% | 0.00\% |
| 13 | 7,157 |  | 239,814,857 |  | 241,108,692 |  | 239,814,857 |  | 0.54\% | 0.00\% |
| 14 | 7,034 |  | 243,338,673 |  | 245,127,316 |  | 243,338,673 |  | 0.74\% | 0.00\% |
| 15 | 6,220 |  | 221,743,785 |  | 223,338,014 |  | 221,743,785 |  | 0.72\% | 0.00\% |
| 16 | 5,708 |  | 208,684,150 |  | 210,362,122 |  | 208,684,150 |  | 0.80\% | 0.00\% |
| 17 | 5,008 |  | 190,027,437 |  | 191,386,013 |  | 190,027,437 |  | 0.71\% | 0.00\% |
| 18 | 4,786 |  | 191,807,127 |  | 193,261,495 |  | 191,807,127 |  | 0.76\% | 0.00\% |
| 19 | 4,047 |  | 170,801,747 |  | 171,748,152 |  | 170,801,747 |  | 0.55\% | 0.00\% |
| 20 | 3,624 |  | 162,861,636 |  | 164,025,547 |  | 164,490,252 | 71\% | 0.71\% | 1.00\% |
| 21 | 3,084 |  | 145,461,474 |  | 146,307,707 |  | 146,916,089 | 58\% | 0.58\% | 1.00\% |
| 22 | 2,878 |  | 142,116,443 |  | 142,764,877 |  | 143,537,607 | 46\% | 0.46\% | 1.00\% |
| 23 | 2,187 |  | 112,527,475 |  | 113,146,990 |  | 113,652,750 | 55\% | 0.55\% | 1.00\% |
| 24 | 1,835 |  | 101,965,318 |  | 102,935,397 |  | 102,984,971 | 95\% | 0.95\% | 1.00\% |
| 25 | 1,351 |  | 79,524,517 |  | 79,979,774 |  | 80,319,762 | 57\% | 0.57\% | 1.00\% |
| 26 | 1,170 |  | 70,607,787 |  | 70,607,787 |  | 71,313,865 |  | 0.00\% | 1.00\% |
| 27 | 913 |  | 57,418,470 |  | 57,418,470 |  | 57,992,655 |  | 0.00\% | 1.00\% |
| 28 | 863 |  | 56,634,073 |  | 56,634,073 |  | 57,200,414 |  | 0.00\% | 1.00\% |
| 29 | 623 |  | 41,264,932 |  | 41,264,932 |  | 41,677,581 |  | 0.00\% | 1.00\% |
| 30+ | 657 |  | 41,191,822 |  | 41,191,822 |  | 41,603,740 |  | 0.00\% | 1.00\% |
| Total | 210,800 |  | 7,383,824,221 |  | 7,497,745,998 |  | 7,485,041,503 | 113\% | 1.54\% | 1.37\% |

NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM
TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN


## NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM

## OVERTIME PAY EXPERIENCE FOR ALL YEARS

## MEN AND WOMEN



| $\begin{gathered} \text { Table } \\ \text { Number } \\ \hline \end{gathered}$ | Table Type | NEW YORK CITY POLICE DEPARTMENT PENSION FUND EXPERIENCE STUDY RESULTS OVERVIEW |  |  |  |  | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 4-YEAR PERIOD ENDING 6/30/2013* |  | 10-YEAR PERIOD ENDING 6/30/2013* |  |  |  |
|  |  |  | Average Number of Decrements per Year | Ratio of Actual to |  | Average Number of Decrements per Year |  |
|  |  | Expected |  | Expected | Proposed |  |  |
| $\begin{aligned} & \text { 1A } \\ & \text { 1B } \end{aligned}$ | Service Retiree MortalityMen | 96\% | 520 | 97\% | 97\% | 503 | The proposed assumption is a based on actual plan experience. Future mortality improvements will be projected using scale MP2014. |
|  |  |  |  |  |  |  |  |
|  | By Year |  |  |  |  |  |  |
|  | Disabled Retiree Mortality | 89\% | 311 | 88\% | 94\% | 286 | The proposed assumption is a based on actual plan experience. Future mortality improvements will be projected using scale MP2014. |
| 2A | Men |  |  |  |  |  |  |
| 2B | By Year |  |  |  |  |  |  |
| 3A3B | Active Member Withdrawals By Year | 82\% | 318 | 137\% | 137\% | 537 | Actual experience has been trending downward. Recommend no change at this time as different timeframes provide different results. |
|  |  |  |  |  |  |  |  |
|  | Active Member Service Retirements | 71\% |  | 97\% | 97\% |  | Recent experience has been consistent with OA assumption. |
| 4A | In 1st Year of Eligibility |  | 602 |  |  | 886 |  |
| 4B | In 2nd Year of Eligibility | 136\% | 140 | 114\% | 114\% | 104 |  |
| 4 C | After 2nd Year of Eligibility | 101\% | 382 | 88\% | 88\% | 239 |  |
| 4D | By Year |  |  |  |  |  |  |
|  | Active Member Ordinary Mortality Men | 76\% | 14 | 94\% | 94\% | 16 | Actual experience has been consistent with current assumption, with trend lowering recently. We recommend no change. |
| 5B | By Year |  |  |  |  |  |  |
| 6A | Active Member Accidental MortalityBy Year | 45\% | 3 | 61\% | 76\% | 4 | Actual experience appears lower than current assumption. We recommend a lower assumption. |
| 6B |  |  |  |  |  |  |  |
| 7A7B | Active Member Ordinary Disability | 95\% | 51 | 118\% | 118\% | 63 | Recent experience has been consistent with OA assumption. |
|  | By Year |  |  |  |  |  |  |
|  | Active Member Accidental Disability | $54 \%$$67 \%$ | 24191 | 49\%105\% | $76 \%$$104 \%$ | $\begin{aligned} & 226 \\ & 134 \end{aligned}$ | Actual experience has been lower than current assumption. Members that are and are not eligible for WTC benefits appear to have similar actual experience. New rates, exponentially-fitted to actual data, are proposed for both those eligible and not eligible for WTC Disability. |
| 8 A | WTC Eligible |  |  |  |  |  |  |
| 8B | WTC Ineligible |  |  |  |  |  |  |
| 8 C | By Year |  |  |  |  |  |  |
|  | Salary Increases** | Expected | Actual | Expected | Proposed | Actual | Overall, salary experience has outpaced the assumption. We recommend a higher merit portion of the salary scale. |
| 9 A | Total | 7.54\% | 8.21\% | 7.37\% | 6.34\% | 8.07\% |  |
| 9 B | Merit Only | 4.54\%$0.50 \%$ | $\begin{gathered} 6.68 \% \\ -0.47 \% \end{gathered}$ | 4.37\%$0.50 \%$ | 2.34\%$0.50 \%$ | $3.21 \%$ |  |
|  | General Increase over Inflation |  |  |  |  | 0.62\% |  |
| 9 C | By Year |  |  |  |  |  |  |
|  | Overtime Pay** | Expected | Actual | Expected | Proposed | Actual | Recommend a flat assumption for OT and OT in year before disability. Recommend a higher OT assumption before retirement. Members are working less Overtime before becoming disabled. |
| 10A | For All Years | 14.76\% | 16.92\% | 14.84\% | 16.00\% | 17.23\% |  |
| 10B | In Year Before Service Retirement | 14.03\% | 21.12\% | 14.42\% | 22.00\% | 23.89\% |  |
| 10 C | In Year Before Disability Retirement | 14.73\% |  | 14.75\% | 16.00\% | 11.54\% |  |
| 10D | By Year |  |  |  |  |  |  |
|  | * Four-year and eight-year periods ending 6/30/2011 were studied for the Withdrawal and Disability Decrements. |  |  |  |  |  |  |
|  | For Salary Increases, average annual pe | ncrease in sa | own. For Overtime Pa | age annua | ne pay is | Ssed as a percentag | of salary. |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND

 ACCIDENTAL DISABILITY ASSUMPTIONS AND EXPERIENCEFOR THE EIGHT-YEAR PERIOD ENDING 6/30/2011



NEW YORK CITY POLICE DEPARTMENT PENSION FUND
SALARY ASSUMPTIONS AND EXPERIENCE
FOR THE TEN-YEAR PERIOD ENDING 6/30/2013



# NEW YORK CITY POLICE DEPARTMENT PENSION FUND 

OVERTIME ASSUMPTIONS AND EXPERIENCE
FOR THE TEN-YEAR PERIOD ENDING 6/30/2013


## NEW YORK CITY POLICE DEPARTMENT PENSION FUND MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

|  | TABLE 1A |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total Exposed | Actual Rate $\qquad$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected $\text { (2) } /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 308 | 0.00000 | 0.115\% | 0.085\% | 0.4 | 0.3 | 0\% | 0\% |
| 42 | 1 | 640 | 0.00156 | 0.127\% | 0.092\% | 0.8 | 0.6 | 123\% | 169\% |
| 43 | 1 | 1,100 | 0.00091 | 0.138\% | 0.101\% | 1.5 | 1.1 | 66\% | 90\% |
| 44 | 0 | 1,741 | 0.00000 | 0.149\% | 0.110\% | 2.6 | 1.9 | 0\% | 0\% |
| 45 | 1 | 2,422 | 0.00041 | 0.159\% | 0.119\% | 3.9 | 2.9 | 26\% | 35\% |
| 46 | 2 | 3,013 | 0.00066 | 0.169\% | 0.129\% | 5.1 | 3.9 | 39\% | 51\% |
| 47 | 2 | 3,532 | 0.00057 | 0.179\% | 0.140\% | 6.3 | 4.9 | 32\% | 41\% |
| 48 | 7 | 3,889 | 0.00180 | 0.188\% | 0.151\% | 7.3 | 5.9 | 96\% | 119\% |
| 49 | 6 | 4,103 | 0.00146 | 0.196\% | 0.163\% | 8.1 | 6.7 | 75\% | 90\% |
| 50 | 7 | 4,196 | 0.00167 | 0.204\% | 0.176\% | 8.6 | 7.4 | 82\% | 95\% |
| 51 | 8 | 4,095 | 0.00195 | 0.265\% | 0.192\% | 10.9 | 7.8 | 74\% | 102\% |
| 52 | 8 | 3,760 | 0.00213 | 0.323\% | 0.210\% | 12.1 | 7.9 | 66\% | 101\% |
| 53 | 10 | 3,351 | 0.00298 | 0.382\% | 0.232\% | 12.8 | 7.8 | 78\% | 129\% |
| 54 | 12 | 2,976 | 0.00403 | 0.439\% | 0.258\% | 13.1 | 7.7 | 92\% | 156\% |
| 55 | 8 | 2,529 | 0.00316 | 0.474\% | 0.289\% | 12.0 | 7.3 | 67\% | 109\% |
| 56 | 6 | 2,190 | 0.00274 | 0.526\% | 0.325\% | 11.5 | 7.1 | 52\% | 84\% |
| 57 | 9 | 1,950 | 0.00462 | 0.579\% | 0.366\% | 11.3 | 7.1 | 80\% | 126\% |
| 58 | 6 | 1,763 | 0.00340 | 0.634\% | 0.412\% | 11.2 | 7.3 | 54\% | 83\% |
| 59 | 9 | 1,722 | 0.00523 | 0.683\% | 0.464\% | 11.8 | 8.0 | 77\% | 113\% |
| 60 | 9 | 1,808 | 0.00498 | 0.732\% | 0.522\% | 13.2 | 9.4 | 68\% | 95\% |
| 61 | 12 | 1,905 | 0.00630 | 0.822\% | 0.588\% | 15.7 | 11.2 | 77\% | 107\% |
| 62 | 8 | 2,089 | 0.00383 | 0.909\% | 0.661\% | 19.0 | 13.8 | 42\% | 58\% |
| 63 | 18 | 2,337 | 0.00770 | 1.007\% | 0.744\% | 23.5 | 17.4 | 76\% | 103\% |
| 64 | 29 | 2,482 | 0.01168 | 1.101\% | 0.838\% | 27.3 | 20.8 | 106\% | 139\% |
| 65 | 21 | 2,588 | 0.00811 | 1.198\% | 0.943\% | 31.0 | 24.4 | 68\% | 86\% |
| 66 | 32 | 2,812 | 0.01138 | 1.309\% | 1.061\% | 36.8 | 29.8 | 87\% | 107\% |
| 67 | 43 | 3,056 | 0.01407 | 1.413\% | 1.195\% | 43.2 | 36.5 | 100\% | 118\% |
| 68 | 46 | 3,199 | 0.01438 | 1.609\% | 1.345\% | 51.5 | 43.0 | 89\% | 107\% |
| 69 | 57 | 3,190 | 0.01787 | 1.823\% | 1.514\% | 58.2 | 48.3 | 98\% | 118\% |
| 70 | 43 | 2,940 | 0.01463 | 2.028\% | 1.704\% | 59.6 | 50.1 | 72\% | 86\% |
| 71 | 38 | 2,569 | 0.01479 | 2.256\% | 1.918\% | 57.9 | 49.3 | 66\% | 77\% |
| 72 | 54 | 2,242 | 0.02409 | 2.490\% | 2.158\% | 55.8 | 48.4 | 97\% | 112\% |
| 73 | 46 | 2,041 | 0.02254 | 2.770\% | 2.429\% | 56.5 | 49.6 | 81\% | 93\% |
| 74 | 59 | 1,838 | 0.03210 | 3.058\% | 2.734\% | 56.2 | 50.3 | 105\% | 117\% |
| 75 | 42 | 1,624 | 0.02586 | 3.382\% | 3.078\% | 54.9 | 50.0 | 76\% | 84\% |
| 76 | 58 | 1,515 | 0.03828 | 3.690\% | 3.464\% | 55.9 | 52.5 | 104\% | 111\% |
| 77 | 50 | 1,343 | 0.03723 | 4.039\% | 3.899\% | 54.2 | 52.4 | 92\% | 95\% |
| 78 | 57 | 1,236 | 0.04612 | 4.588\% | 4.389\% | 56.7 | 54.2 | 101\% | 105\% |
| 79 | 60 | 1,174 | 0.05111 | 5.160\% | 4.940\% | 60.6 | 58.0 | 99\% | 103\% |
| 80 | 78 | 1,233 | 0.06326 | 5.757\% | 5.560\% | 71.0 | 68.6 | 110\% | 114\% |
| 81 | 80 | 1,227 | 0.06520 | 6.275\% | 6.258\% | 77.0 | 76.8 | 104\% | 104\% |
| 82 | 80 | 1,167 | 0.06855 | 6.800\% | 7.044\% | 79.4 | 82.2 | 101\% | 97\% |
| 83 | 86 | 1,113 | 0.07727 | 7.687\% | 7.929\% | 85.6 | 88.2 | 101\% | 97\% |
| 84 | 87 | 962 | 0.09044 | 8.643\% | 8.924\% | 83.1 | 85.9 | 105\% | 101\% |
| 85 | 82 | 862 | 0.09513 | 9.536\% | 10.045\% | 82.2 | 86.6 | 100\% | 95\% |
| 86 | 100 | 771 | 0.12970 | 10.429\% | 11.306\% | 80.4 | 87.2 | 124\% | 115\% |
| 87 | 82 | 720 | 0.11389 | 11.414\% | 12.726\% | 82.2 | 91.6 | 100\% | 89\% |
| 88 | 102 | 642 | 0.15888 | 12.970\% | 14.324\% | 83.3 | 92.0 | 122\% | 111\% |
| 89 | 85 | 540 | 0.15741 | 14.434\% | 16.122\% | 77.9 | 87.1 | 109\% | 98\% |
| 90 | 69 | 449 | 0.15367 | 16.026\% | 18.147\% | 72.0 | 81.5 | 96\% | 85\% |
| 91 | 65 | 343 | 0.18950 | 17.734\% | 20.426\% | 60.8 | 70.1 | 107\% | 93\% |
| 92 | 56 | 275 | 0.20364 | 19.612\% | 22.990\% | 53.9 | 63.2 | 104\% | 89\% |
| 93 | 52 | 214 | 0.24299 | 21.351\% | 25.877\% | 45.7 | 55.4 | 114\% | 94\% |
| 94 | 34 | 151 | 0.22517 | 23.132\% | 29.127\% | 34.9 | 44.0 | 97\% | 77\% |
| 95 | 26 | 104 | 0.25000 | 25.189\% | 32.784\% | 26.2 | 34.1 | 99\% | 76\% |
| 96 | 8 | 55 | 0.14545 | 27.102\% | 36.901\% | 14.9 | 20.3 | 54\% | 39\% |
| 97 | 10 | 39 | 0.25641 | 28.924\% | 41.534\% | 11.3 | 16.2 | 89\% | 62\% |
| 98 | 6 | 17 | 0.35294 | 30.985\% | 46.749\% | 5.3 | 7.9 | 114\% | 75\% |
| 99 | 2 | 7 | 0.28571 | 32.630\% | 50.000\% | 2.3 | 3.5 | 88\% | 57\% |
| Subtotal | 2,075 | 104,159 |  |  |  | 2,168.2 | 2,115.1 | 96\% | 98\% |
| 100 or more | 4 | 13 | 0.30769 | 37.169\% | 50.000\% | 4.8 | 6.5 | 83\% | 62\% |
| Total | 2,079 | 104,172 |  |  |  | 2,173.0 | 2,121.6 | 96\% | 98\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

|  | TABLE 1A GROUPED |  |  | $\begin{array}{ccc} & \text { 4-YEAR PERIOD ENDING 6/30/2013 } \\ \text { Assumed Probability } \\ \text { Expected Deaths }\end{array}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 2 | 3,789 | 0.000528 | 0.1393\% | 0.1021\% | 5.3 | 3.9 | 38\% | 52\% |
| 45-49 | 18 | 16,959 | 0.001061 | 0.1805\% | 0.1430\% | 30.6 | 24.2 | 59\% | 74\% |
| 50-54 | 45 | 18,378 | 0.002449 | 0.3124\% | 0.2099\% | 57.4 | 38.6 | 78\% | 117\% |
| 55-59 | 38 | 10,154 | 0.003742 | 0.5685\% | 0.3626\% | 57.7 | 36.8 | 66\% | 103\% |
| 60-64 | 76 | 10,621 | 0.007156 | 0.9297\% | 0.6839\% | 98.7 | 72.6 | 77\% | 105\% |
| 65-69 | 199 | 14,845 | 0.013405 | 1.4861\% | 1.2264\% | 220.6 | 182.1 | 90\% | 109\% |
| 70-74 | 240 | 11,630 | 0.020636 | 2.4604\% | 2.1288\% | 286.1 | 247.6 | 84\% | 97\% |
| 75-79 | 267 | 6,892 | 0.038741 | 4.0968\% | 3.8751\% | 282.4 | 267.1 | 95\% | 100\% |
| 80-84 | 411 | 5,702 | 0.072080 | 6.9456\% | 7.0440\% | 396.0 | 401.7 | 104\% | 102\% |
| 85-89 | 451 | 3,535 | 0.127581 | 11.4853\% | 12.5716\% | 406.0 | 444.4 | 111\% | 101\% |
| 90-94 | 276 | 1,432 | 0.192737 | 18.6688\% | 21.9359\% | 267.3 | 314.1 | 103\% | 88\% |
| 95-99 | 52 | 222 | 0.234234 | 26.9974\% | 36.9533\% | 59.9 | 82.0 | 87\% | 63\% |
| 100+ | 4 | 13 | 0.307692 | 37.1685\% | 50.0000\% | 4.8 | 6.5 | 83\% | 62\% |
| Total | 2,079 | 104,172 |  |  |  | 2,173.0 | 2,121.6 | 96\% | 98\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

|  | TABLE 1A |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \quad(2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 1 | 1,587 | 0.00063 | 0.118\% | 0.092\% | 1.9 | 1.5 | 53\% | 69\% |
| 42 | 4 | 3,029 | 0.00132 | 0.131\% | 0.101\% | 4.0 | 3.0 | 101\% | 131\% |
| 43 | 3 | 4,395 | 0.00068 | 0.143\% | 0.110\% | 6.3 | 4.8 | 48\% | 62\% |
| 44 | 5 | 5,635 | 0.00089 | 0.154\% | 0.119\% | 8.7 | 6.7 | 57\% | 74\% |
| 45 | 5 | 6,715 | 0.00074 | 0.166\% | 0.130\% | 11.1 | 8.7 | 45\% | 57\% |
| 46 | 11 | 7,500 | 0.00147 | 0.177\% | 0.140\% | 13.2 | 10.5 | 83\% | 105\% |
| 47 | 11 | 8,015 | 0.00137 | 0.187\% | 0.151\% | 15.0 | 12.1 | 73\% | 91\% |
| 48 | 18 | 8,094 | 0.00222 | 0.197\% | 0.162\% | 15.9 | 13.1 | 113\% | 138\% |
| 49 | 17 | 7,945 | 0.00214 | 0.207\% | 0.173\% | 16.4 | 13.7 | 104\% | 124\% |
| 50 | 16 | 7,665 | 0.00209 | 0.216\% | 0.186\% | 16.5 | 14.2 | 97\% | 112\% |
| 51 | 20 | 7,242 | 0.00276 | 0.281\% | 0.201\% | 20.3 | 14.5 | 98\% | 138\% |
| 52 | 21 | 6,678 | 0.00314 | 0.343\% | 0.218\% | 22.9 | 14.5 | 92\% | 144\% |
| 53 | 18 | 6,102 | 0.00295 | 0.405\% | 0.239\% | 24.7 | 14.6 | 73\% | 124\% |
| 54 | 19 | 5,631 | 0.00337 | 0.466\% | 0.263\% | 26.3 | 14.8 | 72\% | 128\% |
| 55 | 16 | 5,275 | 0.00303 | 0.502\% | 0.293\% | 26.5 | 15.5 | 60\% | 104\% |
| 56 | 25 | 5,161 | 0.00484 | 0.556\% | 0.329\% | 28.7 | 17.0 | 87\% | 147\% |
| 57 | 25 | 5,182 | 0.00482 | 0.610\% | 0.370\% | 31.6 | 19.2 | 79\% | 131\% |
| 58 | 33 | 5,230 | 0.00631 | 0.665\% | 0.417\% | 34.8 | 21.8 | 95\% | 151\% |
| 59 | 28 | 5,418 | 0.00517 | 0.717\% | 0.472\% | 38.8 | 25.6 | 72\% | 110\% |
| 60 | 29 | 5,875 | 0.00494 | 0.769\% | 0.534\% | 45.2 | 31.4 | 64\% | 92\% |
| 61 | 44 | 6,392 | 0.00688 | 0.860\% | 0.606\% | 55.0 | 38.8 | 80\% | 114\% |
| 62 | 55 | 6,781 | 0.00811 | 0.951\% | 0.688\% | 64.5 | 46.6 | 85\% | 118\% |
| 63 | 68 | 7,084 | 0.00960 | 1.050\% | 0.780\% | 74.4 | 55.3 | 91\% | 123\% |
| 64 | 84 | 7,255 | 0.01158 | 1.148\% | 0.884\% | 83.3 | 64.1 | 101\% | 131\% |
| 65 | 84 | 7,253 | 0.01158 | 1.250\% | 1.001\% | 90.6 | 72.6 | 93\% | 116\% |
| 66 | 100 | 7,058 | 0.01417 | 1.361\% | 1.132\% | 96.1 | 79.9 | 104\% | 125\% |
| 67 | 112 | 6,838 | 0.01638 | 1.470\% | 1.279\% | 100.5 | 87.5 | 111\% | 128\% |
| 68 | 92 | 6,607 | 0.01392 | 1.678\% | 1.444\% | 110.9 | 95.4 | 83\% | 96\% |
| 69 | 115 | 6,279 | 0.01832 | 1.902\% | 1.630\% | 119.4 | 102.3 | 96\% | 112\% |
| 70 | 93 | 5,738 | 0.01621 | 2.123\% | 1.839\% | 121.8 | 105.5 | 76\% | 88\% |
| 71 | 84 | 5,138 | 0.01635 | 2.360\% | 2.074\% | 121.3 | 106.5 | 69\% | 79\% |
| 72 | 123 | 4,708 | 0.02613 | 2.606\% | 2.338\% | 122.7 | 110.1 | 100\% | 112\% |
| 73 | 121 | 4,334 | 0.02792 | 2.898\% | 2.635\% | 125.6 | 114.2 | 96\% | 106\% |
| 74 | 129 | 4,126 | 0.03127 | 3.200\% | 2.968\% | 132.0 | 122.5 | 98\% | 105\% |
| 75 | 116 | 3,921 | 0.02958 | 3.528\% | 3.342\% | 138.3 | 131.1 | 84\% | 89\% |
| 76 | 135 | 3,772 | 0.03579 | 3.849\% | 3.763\% | 145.2 | 141.9 | 93\% | 95\% |
| 77 | 133 | 3,588 | 0.03707 | 4.201\% | 4.234\% | 150.7 | 151.9 | 88\% | 88\% |
| 78 | 183 | 3,446 | 0.05311 | 4.757\% | 4.762\% | 163.9 | 164.1 | 112\% | 112\% |
| 79 | 172 | 3,295 | 0.05220 | 5.334\% | 5.354\% | 175.8 | 176.4 | 98\% | 97\% |
| 80 | 204 | 3,170 | 0.06435 | 5.934\% | 6.020\% | 188.1 | 190.8 | 108\% | 107\% |
| 81 | 198 | 3,054 | 0.06483 | 6.448\% | 6.767\% | 196.9 | 206.7 | 101\% | 96\% |
| 82 | 215 | 2,882 | 0.07460 | 6.966\% | 7.606\% | 200.8 | 219.2 | 107\% | 98\% |
| 83 | 207 | 2,673 | 0.07744 | 7.874\% | 8.548\% | 210.5 | 228.5 | 98\% | 91\% |
| 84 | 203 | 2,369 | 0.08569 | 8.827\% | 9.608\% | 209.1 | 227.6 | 97\% | 89\% |
| 85 | 214 | 2,141 | 0.09995 | 9.739\% | 10.799\% | 208.5 | 231.2 | 103\% | 93\% |
| 86 | 238 | 1,915 | 0.12428 | 10.651\% | 12.136\% | 204.0 | 232.4 | 117\% | 102\% |
| 87 | 189 | 1,638 | 0.11538 | 11.622\% | 13.638\% | 190.4 | 223.4 | 99\% | 85\% |
| 88 | 195 | 1,390 | 0.14029 | 13.167\% | 15.320\% | 183.0 | 213.0 | 107\% | 92\% |
| 89 | 173 | 1,117 | 0.15488 | 14.653\% | 17.205\% | 163.7 | 192.2 | 106\% | 90\% |
| 90 | 148 | 867 | 0.17070 | 16.220\% | 19.316\% | 140.6 | 167.5 | 105\% | 88\% |
| 91 | 115 | 641 | 0.17941 | 17.949\% | 21.680\% | 115.1 | 139.0 | 100\% | 83\% |
| 92 | 89 | 471 | 0.18896 | 19.790\% | 24.320\% | 93.2 | 114.5 | 95\% | 78\% |
| 93 | 84 | 350 | 0.24000 | 21.544\% | 27.263\% | 75.4 | 95.4 | 111\% | 88\% |
| 94 | 63 | 241 | 0.26141 | 23.341\% | 30.571\% | 56.3 | 73.7 | 112\% | 86\% |
| 95 | 51 | 170 | 0.30000 | 25.341\% | 34.298\% | 43.1 | 58.3 | 118\% | 87\% |
| 96 | 25 | 101 | 0.24752 | 27.265\% | 38.510\% | 27.5 | 38.9 | 91\% | 64\% |
| 97 | 18 | 67 | 0.26866 | 29.098\% | 43.241\% | 19.5 | 29.0 | 92\% | 62\% |
| 98 | 9 | 40 | 0.22500 | 31.078\% | 48.552\% | 12.4 | 19.4 | 72\% | 46\% |
| 99 | 11 | 27 | 0.40741 | 32.728\% | 51.807\% | 8.8 | 14.0 | 124\% | 79\% |
| Subtotal | 5,017 | 247,311 |  |  |  | 5,147.7 | 5,158.4 | 97\% | 97\% |
| 100 or more | 12 | 28 | 0.42857 | 37.169\% | 51.682\% | 10.4 | 14.5 | 115\% | 83\% |
| Total | 5,029 | 247,339 |  |  |  | 5,158.1 | 5,172.9 | 97\% | 97\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

|  | TABLE 1A GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 13 | 14,646 | 0.000888 | 0.1421\% | 0.1097\% | 20.8 | 16.1 | 62\% | 81\% |
| 45-49 | 62 | 38,269 | 0.001620 | 0.1874\% | 0.1518\% | 71.7 | 58.1 | 86\% | 107\% |
| 50-54 | 94 | 33,318 | 0.002821 | 0.3325\% | 0.2182\% | 110.8 | 72.7 | 85\% | 129\% |
| 55-59 | 127 | 26,266 | 0.004835 | 0.6105\% | 0.3767\% | 160.3 | 98.9 | 79\% | 128\% |
| 60-64 | 280 | 33,387 | 0.008386 | 0.9655\% | 0.7075\% | 322.4 | 236.2 | 87\% | 119\% |
| 65-69 | 503 | 34,035 | 0.014779 | 1.5206\% | 1.2859\% | 517.5 | 437.7 | 97\% | 115\% |
| 70-74 | 550 | 24,044 | 0.022875 | 2.5926\% | 2.3239\% | 623.4 | 558.8 | 88\% | 98\% |
| 75-79 | 739 | 18,022 | 0.041005 | 4.2945\% | 4.2473\% | 773.9 | 765.4 | 95\% | 97\% |
| 80-84 | 1,027 | 14,148 | 0.072590 | 7.1060\% | 7.5826\% | 1,005.3 | 1,072.8 | 102\% | 96\% |
| 85-89 | 1,009 | 8,201 | 0.123034 | 11.5784\% | 13.3170\% | 949.5 | 1,092.1 | 106\% | 92\% |
| 90-94 | 499 | 2,570 | 0.194163 | 18.6981\% | 22.9603\% | 480.5 | 590.1 | 104\% | 85\% |
| 95-99 | 114 | 405 | 0.281481 | 27.5013\% | 39.4029\% | 111.4 | 159.6 | 102\% | 71\% |
| 100+ | 12 | 28 | 0.428571 | 37.1685\% | 51.6818\% | 10.4 | 14.5 | 115\% | 83\% |
| Total | 5,029 | 247,339 |  |  |  | 5,158.1 | 5,172.9 | 97\% | 97\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND MORTALITY EXPERIENCE OF SERVICE RETIREES MEN AND WOMEN

| Plan Year Ending June 30, | TABLE 1B <br> Life Years Exposed | Actual <br> Deaths | Expected Deaths | 10-YEAR PERIOD ENDING 6/30/2013$\qquad$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / Expected | $\begin{aligned} & \hline \text { Actual } \\ & \text { (3) / (2) } \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 22,629 | 470 | 346.5 | 136\% | 2.0770\% | 1.5312\% |
| 2005 | 23,879 | 516 | 358.9 | 144\% | 2.1609\% | 1.5029\% |
| 2006 | 25,386 | 458 | 370.4 | 124\% | 1.8041\% | 1.4592\% |
| 2007 | 26,669 | 506 | 383.6 | 132\% | 1.8973\% | 1.4383\% |
| 2008 | 27,655 | 532 | 398.0 | 134\% | 1.9237\% | 1.4393\% |
| 2009 | 27,960 | 526 | 411.2 | 128\% | 1.8813\% | 1.4708\% |
| 2010 | 27,853 | 504 | 423.7 | 119\% | 1.8095\% | 1.5211\% |
| 2011 | 28,138 | 551 | 436.2 | 126\% | 1.9582\% | 1.5502\% |
| 2012 | 29,206 | 506 | 445.6 | 114\% | 1.7325\% | 1.5257\% |
| 2013 | 30,079 | 557 | 459.2 | 121\% | 1.8518\% | 1.5268\% |
| Total | 269,454 | 5,126 | 4033.4 | 127\% | 1.9024\% | 1.4969\% |

[^22]
## NEW YORK CITY POLICE DEPARTMENT PENSION FUND MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN

| Age | TABLE 2A |  |  | $\begin{array}{lc}\text { Assumed Probability } & \text { 4-YEAR PERIOD ENDING 6/30/2013 } \\ \text { Expected Deaths }\end{array}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 4 | 973 | 0.00411 | 0.183\% | 0.089\% | 1.8 | 0.9 | 225\% | 461\% |
| 42 | 3 | 1,107 | 0.00271 | 0.200\% | 0.148\% | 2.2 | 1.6 | 136\% | 183\% |
| 43 | 2 | 1,167 | 0.00171 | 0.216\% | 0.207\% | 2.5 | 2.4 | 79\% | 83\% |
| 44 | 1 | 1,246 | 0.00080 | 0.232\% | 0.266\% | 2.9 | 3.3 | 35\% | 30\% |
| 45 | 1 | 1,331 | 0.00075 | 0.248\% | 0.325\% | 3.3 | 4.3 | 30\% | 23\% |
| 46 | 3 | 1,444 | 0.00208 | 0.254\% | 0.384\% | 3.7 | 5.6 | 82\% | 54\% |
| 47 | 6 | 1,518 | 0.00395 | 0.260\% | 0.443\% | 3.9 | 6.7 | 152\% | 89\% |
| 48 | 8 | 1,499 | 0.00534 | 0.264\% | 0.466\% | 4.0 | 7.0 | 202\% | 115\% |
| 49 | 8 | 1,489 | 0.00537 | 0.333\% | 0.488\% | 5.0 | 7.3 | 161\% | 110\% |
| 50 | 4 | 1,435 | 0.00279 | 0.396\% | 0.510\% | 5.7 | 7.3 | 70\% | 55\% |
| 51 | 4 | 1,303 | 0.00307 | 0.450\% | 0.533\% | 5.9 | 6.9 | 68\% | 58\% |
| 52 | 4 | 1,205 | 0.00332 | 0.498\% | 0.555\% | 6.0 | 6.7 | 67\% | 60\% |
| 53 | 8 | 1,092 | 0.00733 | 0.517\% | 0.578\% | 5.6 | 6.3 | 142\% | 127\% |
| 54 | 5 | 927 | 0.00539 | 0.543\% | 0.600\% | 5.0 | 5.6 | 99\% | 90\% |
| 55 | 4 | 786 | 0.00509 | 0.595\% | 0.622\% | 4.7 | 4.9 | 86\% | 82\% |
| 56 | 7 | 638 | 0.01097 | 0.651\% | 0.645\% | 4.2 | 4.1 | 169\% | 170\% |
| 57 | 5 | 586 | 0.00853 | 0.692\% | 0.667\% | 4.1 | 3.9 | 123\% | 128\% |
| 58 | 4 | 613 | 0.00653 | 0.732\% | 0.726\% | 4.5 | 4.5 | 89\% | 90\% |
| 59 | 8 | 710 | 0.01127 | 0.833\% | 0.786\% | 5.9 | 5.6 | 135\% | 143\% |
| 60 | 10 | 940 | 0.01064 | 0.921\% | 0.845\% | 8.7 | 7.9 | 116\% | 126\% |
| 61 | 11 | 1,110 | 0.00991 | 1.020\% | 0.904\% | 11.3 | 10.0 | 97\% | 110\% |
| 62 | 11 | 1,335 | 0.00824 | 1.116\% | 0.964\% | 14.9 | 12.9 | 74\% | 85\% |
| 63 | 14 | 1,568 | 0.00893 | 1.198\% | 1.097\% | 18.8 | 17.2 | 75\% | 81\% |
| 64 | 32 | 1,675 | 0.01910 | 1.326\% | 1.230\% | 22.2 | 20.6 | 144\% | 155\% |
| 65 | 21 | 1,755 | 0.01197 | 1.432\% | 1.363\% | 25.1 | 23.9 | 84\% | 88\% |
| 66 | 30 | 1,862 | 0.01611 | 1.588\% | 1.496\% | 29.6 | 27.9 | 101\% | 108\% |
| 67 | 24 | 1,944 | 0.01235 | 1.799\% | 1.629\% | 35.0 | 31.7 | 69\% | 76\% |
| 68 | 35 | 1,952 | 0.01793 | 2.002\% | 1.872\% | 39.1 | 36.5 | 90\% | 96\% |
| 69 | 36 | 1,865 | 0.01930 | 2.226\% | 2.116\% | 41.5 | 39.5 | 87\% | 91\% |
| 70 | 28 | 1,607 | 0.01742 | 2.490\% | 2.359\% | 40.0 | 37.9 | 70\% | 74\% |
| 71 | 34 | 1,302 | 0.02611 | 2.770\% | 2.603\% | 36.1 | 33.9 | 94\% | 100\% |
| 72 | 31 | 1,137 | 0.02726 | 3.058\% | 2.846\% | 34.8 | 32.4 | 89\% | 96\% |
| 73 | 29 | 972 | 0.02984 | 3.427\% | 3.237\% | 33.3 | 31.5 | 87\% | 92\% |
| 74 | 31 | 899 | 0.03448 | 3.739\% | 3.628\% | 33.6 | 32.6 | 92\% | 95\% |
| 75 | 22 | 812 | 0.02709 | 4.093\% | 4.019\% | 33.2 | 32.6 | 66\% | 67\% |
| 76 | 32 | 719 | 0.04451 | 4.710\% | 4.410\% | 33.9 | 31.7 | 94\% | 101\% |
| 77 | 28 | 680 | 0.04118 | 5.298\% | 4.801\% | 36.0 | 32.6 | 78\% | 86\% |
| 78 | 37 | 664 | 0.05572 | 5.911\% | 5.376\% | 39.2 | 35.7 | 94\% | 104\% |
| 79 | 41 | 665 | 0.06165 | 6.442\% | 5.951\% | 42.8 | 39.6 | 96\% | 104\% |
| 80 | 48 | 692 | 0.06936 | 6.981\% | 6.526\% | 48.3 | 45.2 | 99\% | 106\% |
| 81 | 53 | 708 | 0.07486 | 7.788\% | 7.101\% | 55.1 | 50.3 | 96\% | 105\% |
| 82 | 43 | 698 | 0.06160 | 8.757\% | 7.676\% | 61.1 | 53.6 | 70\% | 80\% |
| 83 | 58 | 695 | 0.08345 | 9.662\% | 8.472\% | 67.1 | 58.9 | 86\% | 99\% |
| 84 | 64 | 636 | 0.10063 | 10.429\% | 9.268\% | 66.3 | 58.9 | 96\% | 109\% |
| 85 | 43 | 527 | 0.08159 | 11.565\% | 10.064\% | 60.9 | 53.0 | 71\% | 81\% |
| 86 | 53 | 453 | 0.11700 | 13.314\% | 10.860\% | 60.3 | 49.2 | 88\% | 108\% |
| 87 | 47 | 370 | 0.12703 | 14.624\% | 11.656\% | 54.1 | 43.1 | 87\% | 109\% |
| 88 | 34 | 272 | 0.12500 | 16.236\% | 12.710\% | 44.2 | 34.6 | 77\% | 98\% |
| 89 | 37 | 234 | 0.15812 | 17.967\% | 13.764\% | 42.0 | 32.2 | 88\% | 115\% |
| 90 | 35 | 189 | 0.18519 | 19.870\% | 14.817\% | 37.6 | 28.0 | 93\% | 125\% |
| 91 | 32 | 145 | 0.22069 | 21.631\% | 15.871\% | 31.4 | 23.0 | 102\% | 139\% |
| 92 | 25 | 110 | 0.22727 | 23.132\% | 16.925\% | 25.4 | 18.6 | 98\% | 134\% |
| 93 | 18 | 74 | 0.24324 | 25.519\% | 18.273\% | 18.9 | 13.5 | 95\% | 133\% |
| 94 | 14 | 47 | 0.29787 | 27.458\% | 19.622\% | 12.9 | 9.2 | 108\% | 152\% |
| 95 | 6 | 29 | 0.20690 | 28.924\% | 20.970\% | 8.4 | 6.1 | 72\% | 99\% |
| 96 | 6 | 15 | 0.40000 | 31.391\% | 22.319\% | 4.7 | 3.3 | 127\% | 179\% |
| 97 | 1 | 8 | 0.12500 | 33.058\% | 23.667\% | 2.6 | 1.9 | 38\% | 53\% |
| 98 | 0 | 4 | 0.00000 | 34.044\% | 25.347\% | 1.4 | 1.0 | 0\% | 0\% |
| 99 | 0 | 1 | 0.00000 | 36.332\% | 27.027\% | 0.4 | 0.3 | 0\% | 0\% |
| Subtotal | 1,243 | 52,439 |  |  |  | 1,393.1 | 1,247.5 | 89\% | 100\% |
| 100 or more | 0 | 1 | 0.00000 | 39.200\% | $32.066 \%$ | 0.4 | 0.3 | 0\% | 0\% |
| Total | 1,243 | 52,440 |  |  |  | 1,393.5 | 1,247.8 | 89\% | 100\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN

|  | TABLE 2A GROUPED |  |  | $\begin{array}{lc} \\ \text { Assumed Probability } & \text { 4-YEAR PERIOD ENDING 6/30/2013 } \\ \text { Expected Deaths }\end{array}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed $(8) /(3)$ | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 10 | 4,493 | 0.002226 | 0.2092\% | 0.1835\% | 9.4 | 8.2 | 106\% | 121\% |
| 45-49 | 26 | 7,281 | 0.003571 | 0.2724\% | 0.4239\% | 19.8 | 30.9 | 131\% | 84\% |
| 50-54 | 25 | 5,962 | 0.004193 | 0.4735\% | 0.5506\% | 28.2 | 32.8 | 89\% | 76\% |
| 55-59 | 28 | 3,333 | 0.008401 | 0.6986\% | 0.6885\% | 23.3 | 22.9 | 120\% | 122\% |
| 60-64 | 78 | 6,628 | 0.011768 | 1.1447\% | 1.0357\% | 75.9 | 68.6 | 103\% | 114\% |
| 65-69 | 146 | 9,378 | 0.015568 | 1.8156\% | 1.7001\% | 170.3 | 159.4 | 86\% | 92\% |
| 70-74 | 153 | 5,917 | 0.025858 | 3.0044\% | 2.8436\% | 177.8 | 168.3 | 86\% | 91\% |
| 75-79 | 160 | 3,540 | 0.045198 | 5.2320\% | 4.8661\% | 185.2 | 172.3 | 86\% | 93\% |
| 80-84 | 266 | 3,429 | 0.077574 | 8.6920\% | 7.7819\% | 298.0 | 266.8 | 89\% | 100\% |
| 85-89 | 214 | 1,856 | 0.115302 | 14.0934\% | 11.4300\% | 261.6 | 212.1 | 82\% | 101\% |
| 90-94 | 124 | 565 | 0.219469 | 22.3280\% | 16.3506\% | 126.2 | 92.4 | 98\% | 134\% |
| 95-99 | 13 | 57 | 0.228070 | 30.6425\% | 22.1170\% | 17.5 | 12.6 | 74\% | 103\% |
| 100+ | 0 | 1 | 0.000000 | 39.2003\% | 32.0661\% | 0.4 | 0.3 | 0\% | 0\% |
| Total | 1,243 | 52,440 |  |  |  | 1,393.5 | 1,247.8 | 89\% | 100\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN

| Age | TABLE 2A |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \quad(2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 8 | 2,449 | 0.00327 | 0.188\% | 0.097\% | 4.6 | 2.4 | 174\% | 338\% |
| 42 | 7 | 2,749 | 0.00255 | 0.206\% | 0.161\% | 5.7 | 4.4 | 124\% | 158\% |
| 43 | 4 | 2,960 | 0.00135 | 0.223\% | 0.226\% | 6.6 | 6.7 | 61\% | 60\% |
| 44 | 8 | 3,083 | 0.00259 | 0.240\% | 0.290\% | 7.4 | 9.0 | 108\% | 89\% |
| 45 | 11 | 3,181 | 0.00346 | 0.258\% | 0.354\% | 8.2 | 11.3 | 134\% | 98\% |
| 46 | 8 | 3,218 | 0.00249 | 0.265\% | 0.417\% | 8.5 | 13.4 | 94\% | 60\% |
| 47 | 9 | 3,167 | 0.00284 | 0.272\% | 0.478\% | 8.6 | 15.1 | 105\% | 59\% |
| 48 | 11 | 3,020 | 0.00364 | 0.277\% | 0.499\% | 8.4 | 15.1 | 131\% | 73\% |
| 49 | 12 | 2,805 | 0.00428 | 0.351\% | 0.519\% | 9.8 | 14.6 | 122\% | 82\% |
| 50 | 6 | 2,554 | 0.00235 | 0.418\% | 0.539\% | 10.7 | 13.8 | 56\% | 44\% |
| 51 | 5 | 2,341 | 0.00214 | 0.477\% | 0.558\% | 11.2 | 13.1 | 45\% | 38\% |
| 52 | 7 | 2,208 | 0.00317 | 0.529\% | 0.576\% | 11.7 | 12.7 | 60\% | 55\% |
| 53 | 15 | 2,106 | 0.00712 | 0.549\% | 0.594\% | 11.6 | 12.5 | 130\% | 120\% |
| 54 | 15 | 2,121 | 0.00707 | 0.577\% | 0.612\% | 12.2 | 13.0 | 122\% | 116\% |
| 55 | 13 | 2,206 | 0.00589 | 0.630\% | 0.631\% | 13.9 | 13.9 | 94\% | 93\% |
| 56 | 16 | 2,395 | 0.00668 | 0.687\% | 0.651\% | 16.5 | 15.6 | 97\% | 103\% |
| 57 | 24 | 2,645 | 0.00907 | 0.729\% | 0.674\% | 19.3 | 17.8 | 125\% | 135\% |
| 58 | 19 | 2,920 | 0.00651 | 0.769\% | 0.735\% | 22.4 | 21.5 | 85\% | 88\% |
| 59 | 28 | 3,250 | 0.00862 | 0.874\% | 0.799\% | 28.4 | 26.0 | 99\% | 108\% |
| 60 | 37 | 3,690 | 0.01003 | 0.967\% | 0.865\% | 35.7 | 31.9 | 104\% | 116\% |
| 61 | 40 | 4,089 | 0.00978 | 1.068\% | 0.933\% | 43.7 | 38.2 | 92\% | 105\% |
| 62 | 43 | 4,357 | 0.00987 | 1.167\% | 1.002\% | 50.9 | 43.7 | 85\% | 98\% |
| 63 | 43 | 4,524 | 0.00950 | 1.250\% | 1.150\% | 56.5 | 52.0 | 76\% | 83\% |
| 64 | 71 | 4,481 | 0.01584 | 1.384\% | 1.298\% | 62.0 | 58.1 | 115\% | 122\% |
| 65 | 59 | 4,348 | 0.01357 | 1.494\% | 1.446\% | 65.0 | 62.9 | 91\% | 94\% |
| 66 | 69 | 4,187 | 0.01648 | 1.651\% | 1.595\% | 69.1 | 66.8 | 100\% | 103\% |
| 67 | 63 | 3,904 | 0.01614 | 1.871\% | 1.744\% | 73.1 | 68.1 | 86\% | 93\% |
| 68 | 67 | 3,649 | 0.01836 | 2.088\% | 2.011\% | 76.2 | 73.4 | 88\% | 91\% |
| 69 | 68 | 3,366 | 0.02020 | 2.322\% | 2.278\% | 78.2 | 76.7 | 87\% | 89\% |
| 70 | 60 | 3,008 | 0.01995 | 2.606\% | 2.546\% | 78.4 | 76.6 | 77\% | 78\% |
| 71 | 76 | 2,650 | 0.02868 | 2.898\% | 2.815\% | 76.8 | 74.6 | 99\% | 102\% |
| 72 | 68 | 2,387 | 0.02849 | 3.200\% | 3.083\% | 76.4 | 73.6 | 89\% | 92\% |
| 73 | 63 | 2,214 | 0.02846 | 3.586\% | 3.511\% | 79.4 | 77.7 | 79\% | 81\% |
| 74 | 83 | 2,176 | 0.03814 | 3.912\% | 3.939\% | 85.1 | 85.7 | 98\% | 97\% |
| 75 | 71 | 2,158 | 0.03290 | 4.270\% | 4.365\% | 92.1 | 94.2 | 77\% | 75\% |
| 76 | 90 | 2,120 | 0.04245 | 4.914\% | 4.790\% | 104.2 | 101.6 | 86\% | 89\% |
| 77 | 101 | 2,078 | 0.04860 | 5.510\% | 5.213\% | 114.5 | 108.3 | 88\% | 93\% |
| 78 | 103 | 2,032 | 0.05069 | 6.129\% | 5.833\% | 124.5 | 118.5 | 83\% | 87\% |
| 79 | 111 | 1,967 | 0.05643 | 6.659\% | 6.450\% | 131.0 | 126.9 | 85\% | 87\% |
| 80 | 135 | 1,871 | 0.07215 | 7.195\% | 7.066\% | 134.6 | 132.2 | 100\% | 102\% |
| 81 | 132 | 1,743 | 0.07573 | 8.002\% | 7.678\% | 139.5 | 133.8 | 95\% | 99\% |
| 82 | 112 | 1,576 | 0.07107 | 8.970\% | 8.288\% | 141.4 | 130.6 | 79\% | 86\% |
| 83 | 119 | 1,448 | 0.08218 | 9.897\% | 9.134\% | 143.3 | 132.3 | 83\% | 90\% |
| 84 | 118 | 1,265 | 0.09328 | 10.651\% | 9.978\% | 134.7 | 126.2 | 88\% | 93\% |
| 85 | 87 | 1,070 | 0.08131 | 11.811\% | 10.819\% | 126.4 | 115.8 | 69\% | 75\% |
| 86 | 109 | 910 | 0.11978 | 13.598\% | 11.657\% | 123.7 | 106.1 | 88\% | 103\% |
| 87 | 95 | 720 | 0.13194 | 14.890\% | 12.491\% | 107.2 | 89.9 | 89\% | 106\% |
| 88 | 72 | 539 | 0.13358 | 16.482\% | 13.594\% | 88.8 | 73.3 | 81\% | 98\% |
| 89 | 59 | 419 | 0.14081 | 18.240\% | 14.688\% | 76.4 | 61.5 | 77\% | 96\% |
| 90 | 52 | 323 | 0.16099 | 20.110\% | 15.772\% | 65.0 | 50.9 | 80\% | 102\% |
| 91 | 46 | 236 | 0.19492 | 21.893\% | 16.846\% | 51.7 | 39.8 | 89\% | 116\% |
| 92 | 36 | 169 | 0.21302 | 23.341\% | 17.904\% | 39.4 | 30.3 | 91\% | 119\% |
| 93 | 25 | 115 | 0.21739 | 25.750\% | 19.252\% | 29.6 | 22.1 | 84\% | 113\% |
| 94 | 24 | 72 | 0.33333 | 27.706\% | 20.595\% | 19.9 | 14.8 | 120\% | 162\% |
| 95 | 12 | 43 | 0.27907 | 29.098\% | 21.939\% | 12.5 | 9.4 | 96\% | 127\% |
| 96 | 6 | 21 | 0.28571 | 31.580\% | 23.292\% | 6.6 | 4.9 | 90\% | 123\% |
| 97 | 3 | 11 | 0.27273 | 33.257\% | 24.640\% | 3.7 | 2.7 | 82\% | 111\% |
| 98 | 1 | 5 | 0.20000 | 34.147\% | 26.324\% | 1.7 | 1.3 | 59\% | 76\% |
| 99 | 0 | 1 | 0.00000 | 36.442\% | 28.004\% | 0.4 | 0.3 | 0\% | 0\% |
| Subtotal | 2,855 | 127,320 |  |  |  | 3,244.9 | 3,039.4 | 88\% | 94\% |
| 100 or more | 0 | 1 | 0.00000 | 39.200\% | 33.225\% | 0.4 | 0.3 | 0\% | 0\% |
| Total | 2,855 | 127,321 |  |  |  | 3,245.3 | 3,039.8 | 88\% | 94\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN

|  | TABLE 2A GROUPED |  |  | Assumed Probability $\quad \begin{gathered}\text { 10-YEAR PERIOD ENDING 6/30/2013 } \\ \text { Expected Deaths }\end{gathered}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed $(\mathbf{8}) /(3)$ | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 27 | 11,241 | 0.002402 | 0.2160\% | 0.1997\% | 24.3 | 22.4 | 111\% | 120\% |
| 45-49 | 51 | 15,391 | 0.003314 | 0.2830\% | 0.4512\% | 43.6 | 69.4 | 117\% | 73\% |
| 50-54 | 48 | 11,330 | 0.004237 | 0.5061\% | 0.5739\% | 57.3 | 65.0 | 84\% | 74\% |
| 55-59 | 100 | 13,416 | 0.007454 | 0.7490\% | 0.7065\% | 100.5 | 94.8 | 100\% | 105\% |
| 60-64 | 234 | 21,141 | 0.011069 | 1.1764\% | 1.0592\% | 248.7 | 223.9 | 94\% | 105\% |
| 65-69 | 326 | 19,454 | 0.016757 | 1.8583\% | 1.7878\% | 361.5 | 347.8 | 90\% | 94\% |
| 70-74 | 350 | 12,435 | 0.028146 | 3.1852\% | 3.1220\% | 396.1 | 388.2 | 88\% | 90\% |
| 75-79 | 476 | 10,355 | 0.045968 | 5.4692\% | 5.3065\% | 566.3 | 549.5 | 84\% | 87\% |
| 80-84 | 616 | 7,903 | 0.077945 | 8.7754\% | 8.2895\% | 693.5 | 655.1 | 89\% | 94\% |
| 85-89 | 422 | 3,658 | 0.115364 | 14.2862\% | 12.2089\% | 522.6 | 446.6 | 81\% | 94\% |
| 90-94 | 183 | 915 | 0.200000 | 22.4733\% | 17.2597\% | 205.6 | 157.9 | 89\% | 116\% |
| 95-99 | 22 | 81 | 0.271605 | 30.7085\% | 23.0019\% | 24.9 | 18.6 | 88\% | 118\% |
| 100+ | 0 | 1 | 0.000000 | 39.2003\% | 33.2252\% | 0.4 | 0.3 | 0\% | 0\% |
| Total | 2,855 | 127,321 |  |  |  | 3,245.3 | 3,039.8 | 88\% | 94\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN AND WOMEN

| Plan Year | TABLE 2B |  |  | 10-YEAR PE | Mortality Rate |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending June 30, | Life Years Exposed | Actual <br> Deaths | Expected Deaths | Actual / Expected | $\begin{aligned} & \hline \text { Actual } \\ & \text { (3) / (2) } \\ & \hline \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 14,085 | 243 | 164.3 | 148\% | 1.7252\% | 1.1663\% |
| 2005 | 14,360 | 260 | 173.6 | 150\% | 1.8106\% | 1.2091\% |
| 2006 | 14,552 | 262 | 182.0 | 144\% | 1.8004\% | 1.2507\% |
| 2007 | 14,771 | 287 | 191.9 | 150\% | 1.9430\% | 1.2991\% |
| 2008 | 14,885 | 293 | 199.7 | 147\% | 1.9684\% | 1.3413\% |
| 2009 | 14,971 | 308 | 207.4 | 149\% | 2.0573\% | 1.3851\% |
| 2010 | 15,072 | 296 | 216.0 | 137\% | 1.9639\% | 1.4330\% |
| 2011 | 15,153 | 310 | 223.5 | 139\% | 2.0458\% | 1.4752\% |
| 2012 | 15,241 | 335 | 230.2 | 146\% | 2.1980\% | 1.5105\% |
| 2013 | 15,285 | 342 | 236.8 | 144\% | 2.2375\% | 1.5494\% |
| Total | 148,375 | 2,936 | 2025.4 | 145\% | 1.9788\% | 1.3650\% |

[^23]
## NEW YORK CITY POLICE DEPARTMENT PENSION FUND WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Service | TABLE 3A |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Withdrawals |  | Actual/Expected |  |
|  | Actual | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) /(3) } \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | $\begin{gathered} \text { Expected } \\ (2) /(7) \\ \hline \end{gathered}$ | $\begin{aligned} & \text { Proposed } \\ & (2) /(8) \\ & \hline \end{aligned}$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 0 | 45 | 1,621 | 0.0278 | 4.00\% | 4.00\% | 64.8 | 64.8 | 69\% | 69\% |
| 1 | 193 | 6,823 | 0.0283 | 3.00\% | 3.00\% | 204.7 | 204.7 | 94\% | 94\% |
| 2 | 248 | 8,987 | 0.0276 | 2.00\% | 2.00\% | 179.7 | 179.7 | 138\% | 138\% |
| 3 | 190 | 9,591 | 0.0198 | 2.00\% | 2.00\% | 191.8 | 191.8 | 99\% | 99\% |
| 4 | 101 | 8,613 | 0.0117 | 2.00\% | 2.00\% | 172.3 | 172.3 | 59\% | 59\% |
| 5 | 100 | 7,888 | 0.0127 | 2.00\% | 2.00\% | 157.8 | 157.8 | 63\% | 63\% |
| 6 | 67 | 6,462 | 0.0104 | 1.80\% | 1.80\% | 116.3 | 116.3 | 58\% | 58\% |
| 7 | 63 | 5,582 | 0.0113 | 1.60\% | 1.60\% | 89.3 | 89.3 | 71\% | 71\% |
| 8 | 55 | 5,475 | 0.0100 | 1.40\% | 1.40\% | 76.7 | 76.7 | 72\% | 72\% |
| 9 | 42 | 5,277 | 0.0080 | 1.20\% | 1.20\% | 63.3 | 63.3 | 66\% | 66\% |
| 10 | 37 | 4,994 | 0.0074 | 1.00\% | 1.00\% | 49.9 | 49.9 | 74\% | 74\% |
| 11 | 16 | 4,750 | 0.0034 | 0.80\% | 0.80\% | 38.0 | 38.0 | 42\% | 42\% |
| 12 | 17 | 5,049 | 0.0034 | 0.60\% | 0.60\% | 30.3 | 30.3 | 56\% | 56\% |
| 13 | 23 | 5,109 | 0.0045 | 0.50\% | 0.50\% | 25.5 | 25.5 | 90\% | 90\% |
| 14 | 18 | 6,249 | 0.0029 | 0.40\% | 0.40\% | 25.0 | 25.0 | 72\% | 72\% |
| 15 | 18 | 6,687 | 0.0027 | 0.30\% | 0.30\% | 20.1 | 20.1 | 90\% | 90\% |
| 16 | 14 | 7,382 | 0.0019 | 0.20\% | 0.20\% | 14.8 | 14.8 | 95\% | 95\% |
| 17 | 10 | 7,213 | 0.0014 | 0.20\% | 0.20\% | 14.4 | 14.4 | 69\% | 69\% |
| 18 | 7 | 6,133 | 0.0011 | 0.20\% | 0.20\% | 12.3 | 12.3 | 57\% | 57\% |
| 19 | 7 | 5,045 | 0.0014 | 0.20\% | 0.20\% | 10.1 | 10.1 | 69\% | 69\% |
| Total | 1,271 | 124,930 | 0.0102 |  |  | 1,557.1 | 1,557.1 | 82\% | 82\% |

# NEW YORK CITY POLICE DEPARTMENT PENSION FUND WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS <br> MEN AND WOMEN 

| Service | TABLE 3A |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Withdrawals |  | Actual/Expected |  |
|  | Actual | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \quad(2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | Expected $\text { (3) } \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected $\text { (2) } /(7)$ | Proposed $(2) /(8)$ |
|  | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 0 | 329 | 4,847 | 0.0679 | 4.00\% | 4.00\% | 193.9 | 193.9 | 170\% | 170\% |
| 1 | 1,085 | 16,269 | 0.0667 | 3.00\% | 3.00\% | 488.1 | 488.1 | 222\% | 222\% |
| 2 | 581 | 16,342 | 0.0356 | 2.00\% | 2.00\% | 326.8 | 326.8 | 178\% | 178\% |
| 3 | 459 | 16,383 | 0.0280 | 2.00\% | 2.00\% | 327.7 | 327.7 | 140\% | 140\% |
| 4 | 288 | 14,646 | 0.0197 | 2.00\% | 2.00\% | 292.9 | 292.9 | 98\% | 98\% |
| 5 | 302 | 13,657 | 0.0221 | 2.00\% | 2.00\% | 273.1 | 273.1 | 111\% | 111\% |
| 6 | 223 | 11,871 | 0.0188 | 1.80\% | 1.80\% | 213.7 | 213.7 | 104\% | 104\% |
| 7 | 196 | 11,069 | 0.0177 | 1.60\% | 1.60\% | 177.1 | 177.1 | 111\% | 111\% |
| 8 | 145 | 11,411 | 0.0127 | 1.40\% | 1.40\% | 159.8 | 159.8 | 91\% | 91\% |
| 9 | 125 | 11,110 | 0.0113 | 1.20\% | 1.20\% | 133.3 | 133.3 | 94\% | 94\% |
| 10 | 127 | 11,989 | 0.0106 | 1.00\% | 1.00\% | 119.9 | 119.9 | 106\% | 106\% |
| 11 | 95 | 12,672 | 0.0075 | 0.80\% | 0.80\% | 101.4 | 101.4 | 94\% | 94\% |
| 12 | 84 | 12,582 | 0.0067 | 0.60\% | 0.60\% | 75.5 | 75.5 | 111\% | 111\% |
| 13 | 77 | 13,226 | 0.0058 | 0.50\% | 0.50\% | 66.1 | 66.1 | 116\% | 116\% |
| 14 | 39 | 12,677 | 0.0031 | 0.40\% | 0.40\% | 50.7 | 50.7 | 77\% | 77\% |
| 15 | 49 | 12,553 | 0.0039 | 0.30\% | 0.30\% | 37.7 | 37.7 | 130\% | 130\% |
| 16 | 37 | 12,901 | 0.0029 | 0.20\% | 0.20\% | 25.8 | 25.8 | 143\% | 143\% |
| 17 | 20 | 13,392 | 0.0015 | 0.20\% | 0.20\% | 26.8 | 26.8 | 75\% | 75\% |
| 18 | 19 | 13,303 | 0.0014 | 0.20\% | 0.20\% | 26.6 | 26.6 | 71\% | 71\% |
| 19 | 18 | 13,365 | 0.0013 | 0.20\% | 0.20\% | 26.7 | 26.7 | 67\% | 67\% |
| Total | 4,298 | 256,265 | 0.0168 |  |  | 3,143.5 | 3,143.5 | 137\% | 137\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND

 WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN| Plan <br> Year | TABLE 3B |  |  | 0-YEAR PE | Withdrawal Rate | 13 <br> Rate |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending June 30, | Life Years Exposed | Actual Withdrawals | Expected Withdrawals | Actual / Expected | Actual $(3) /(2)$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 34,258 | 950 | 379.4 | 250\% | 2.77\% | 1.11\% |
| 2005 | 32,645 | 672 | 371.3 | 181\% | 2.06\% | 1.14\% |
| 2006 | 32,771 | 823 | 422.7 | 195\% | 2.51\% | 1.29\% |
| 2007 | 31,661 | 583 | 413.1 | 141\% | 1.84\% | 1.30\% |
| 2008 | 31,319 | 638 | 406.4 | 157\% | 2.04\% | 1.30\% |
| 2009 | 31,961 | 278 | 412.2 | 67\% | 0.87\% | 1.29\% |
| 2010 | 31,686 | 216 | 389.8 | 55\% | 0.68\% | 1.23\% |
| 2011 | 29,964 | 139 | 348.7 | 40\% | 0.46\% | 1.16\% |
| 2012 | 28,886 | 89 | 343.6 | 26\% | 0.31\% | 1.19\% |
| 2013 | 29,148 | 117 | 374.7 | 31\% | 0.40\% | 1.29\% |
| Total | 314,299 | 4,505 | 3861.8 | 117\% | 1.43\% | 1.23\% |

*The total exposures and actuals shown above include experience at all service levels. I.e. service over 20 years

# NEW YORK CITY POLICE DEPARTMENT PENSION FUND RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY MEN AND WOMEN 

| Age | TABLE 4A |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed <br> (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 249 | 392 | 0.6352 | 60.00\% | 60.00\% | 235.2 | 235.2 | 106\% | 106\% |
| 41 | 306 | 773 | 0.3959 | 60.00\% | 60.00\% | 463.8 | 463.8 | 66\% | 66\% |
| 42 | 319 | 780 | 0.4090 | 60.00\% | 60.00\% | 468.0 | 468.0 | 68\% | 68\% |
| 43 | 326 | 768 | 0.4245 | 60.00\% | 60.00\% | 460.8 | 460.8 | 71\% | 71\% |
| 44 | 257 | 650 | 0.3954 | 60.00\% | 60.00\% | 390.0 | 390.0 | 66\% | 66\% |
| 45 | 228 | 568 | 0.4014 | 60.00\% | 60.00\% | 340.8 | 340.8 | 67\% | 67\% |
| 46 | 206 | 476 | 0.4328 | 60.00\% | 60.00\% | 285.6 | 285.6 | 72\% | 72\% |
| 47 | 156 | 375 | 0.4160 | 60.00\% | 60.00\% | 225.0 | 225.0 | 69\% | 69\% |
| 48 | 108 | 290 | 0.3724 | 60.00\% | 60.00\% | 174.0 | 174.0 | 62\% | 62\% |
| 49 | 104 | 235 | 0.4426 | 60.00\% | 60.00\% | 141.0 | 141.0 | 74\% | 74\% |
| 50 | 70 | 174 | 0.4023 | 60.00\% | 60.00\% | 104.4 | 104.4 | 67\% | 67\% |
| 51 | 47 | 115 | 0.4087 | 60.00\% | 60.00\% | 69.0 | 69.0 | 68\% | 68\% |
| 52 | 19 | 47 | 0.4043 | 60.00\% | 60.00\% | 28.2 | 28.2 | 67\% | 67\% |
| 53 | 7 | 22 | 0.3182 | 60.00\% | 60.00\% | 13.2 | 13.2 | 53\% | 53\% |
| 54 | 3 | 8 | 0.3750 | 60.00\% | 60.00\% | 4.8 | 4.8 | 63\% | 63\% |
| 55 | 2 | 4 | 0.5000 | 60.00\% | 60.00\% | 2.4 | 2.4 | 83\% | 83\% |
| 56 | 1 | 2 | 0.5000 | 60.00\% | 60.00\% | 1.2 | 1.2 | 83\% | 83\% |
| 57 | 0 | 1 | 0.0000 | 60.00\% | 60.00\% | 0.6 | 0.6 | 0\% | 0\% |
| 58 | 0 | 1 | 0.0000 | 60.00\% | 60.00\% | 0.6 | 0.6 | 0\% | 0\% |
| 59 | 1 | 1 | 1.0000 | 60.00\% | 60.00\% | 0.6 | 0.6 | 167\% | 167\% |
| 60 | 0 | 0 | N/A | 60.00\% | 60.00\% | 0 | 0 | 0\% | 0\% |
| 61 | 0 | 0 | N/A | 60.00\% | 60.00\% | 0 | 0 | 0\% | 0\% |
| 62 | 0 | 0 | N/A | 60.00\% | 60.00\% | 0 | 0 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 100.00\% | 100.00\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 2,409 | 5,682 |  |  |  | 3,409.2 | 3,409.2 | 71\% | 71\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 2,409 | 5,682 |  |  |  | 3,409.2 | 3,409.2 | 71\% | 71\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND

RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY MEN AND WOMEN

| Age | TABLE 4B |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 12 | 16 | 0.7500 | 15.00\% | 15.00\% | 2.4 | 2.4 | 500\% | 500\% |
| 41 | 52 | 196 | 0.2653 | 15.00\% | 15.00\% | 29.4 | 29.4 | 177\% | 177\% |
| 42 | 68 | 388 | 0.1753 | 15.00\% | 15.00\% | 58.2 | 58.2 | 117\% | 117\% |
| 43 | 71 | 397 | 0.1788 | 15.00\% | 15.00\% | 59.6 | 59.6 | 119\% | 119\% |
| 44 | 86 | 392 | 0.2194 | 15.00\% | 15.00\% | 58.8 | 58.8 | 146\% | 146\% |
| 45 | 59 | 325 | 0.1815 | 15.00\% | 15.00\% | 48.8 | 48.8 | 121\% | 121\% |
| 46 | 51 | 261 | 0.1954 | 15.00\% | 15.00\% | 39.2 | 39.2 | 130\% | 130\% |
| 47 | 40 | 204 | 0.1961 | 15.00\% | 15.00\% | 30.6 | 30.6 | 131\% | 131\% |
| 48 | 34 | 162 | 0.2099 | 15.00\% | 15.00\% | 24.3 | 24.3 | 140\% | 140\% |
| 49 | 37 | 146 | 0.2534 | 15.00\% | 15.00\% | 21.9 | 21.9 | 169\% | 169\% |
| 50 | 16 | 92 | 0.1739 | 15.00\% | 15.00\% | 13.8 | 13.8 | 116\% | 116\% |
| 51 | 20 | 91 | 0.2198 | 15.00\% | 15.00\% | 13.7 | 13.7 | 147\% | 147\% |
| 52 | 8 | 38 | 0.2105 | 15.00\% | 15.00\% | 5.7 | 5.7 | 140\% | 140\% |
| 53 | 4 | 25 | 0.1600 | 15.00\% | 15.00\% | 3.8 | 3.8 | 107\% | 107\% |
| 54 | 0 | 6 | 0.0000 | 15.00\% | 15.00\% | 0.9 | 0.9 | 0\% | 0\% |
| 55 | 1 | 3 | 0.3333 | 15.00\% | 15.00\% | 0.5 | 0.5 | 222\% | 222\% |
| 56 | 1 | 2 | 0.5000 | 15.00\% | 15.00\% | 0.3 | 0.3 | 333\% | 333\% |
| 57 | 0 | 1 | 0.0000 | 15.00\% | 15.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 58 | 0 | 1 | 0.0000 | 15.00\% | 15.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 59 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0 | 0 | 0\% | 0\% |
| 60 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0 | 0 | 0\% | 0\% |
| 61 | 0 | 0 | N/A | 30.00\% | 30.00\% | 0 | 0 | 0\% | 0\% |
| 62 | 0 | 0 | N/A | 50.00\% | 50.00\% | 0 | 0 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 100.00\% | 100.00\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 560 | 2,746 |  |  |  | 411.9 | 411.9 | 136\% | 136\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 560 | 2,746 |  |  |  | 411.9 | 411.9 | 136\% | 136\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND

RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY MEN AND WOMEN

| Age | TABLE 4C |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Retirements | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed (2)/(8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 3 | 5 | 0.6000 | 10.00\% | 10.00\% | 0.5 | 0.5 | 600\% | 600\% |
| 41 | 15 | 18 | 0.8333 | 10.00\% | 10.00\% | 1.8 | 1.8 | 833\% | 833\% |
| 42 | 43 | 196 | 0.2194 | 10.00\% | 10.00\% | 19.6 | 19.6 | 219\% | 219\% |
| 43 | 70 | 517 | 0.1354 | 10.00\% | 10.00\% | 51.7 | 51.7 | 135\% | 135\% |
| 44 | 87 | 846 | 0.1028 | 10.00\% | 10.00\% | 84.6 | 84.6 | 103\% | 103\% |
| 45 | 140 | 1,082 | 0.1294 | 10.00\% | 10.00\% | 108.2 | 108.2 | 129\% | 129\% |
| 46 | 146 | 1,128 | 0.1294 | 11.00\% | 11.00\% | 124.1 | 124.1 | 118\% | 118\% |
| 47 | 155 | 1,159 | 0.1337 | 12.00\% | 12.00\% | 139.1 | 139.1 | 111\% | 111\% |
| 48 | 134 | 1,072 | 0.1250 | 13.00\% | 13.00\% | 139.4 | 139.4 | 96\% | 96\% |
| 49 | 123 | 967 | 0.1272 | 14.00\% | 14.00\% | 135.4 | 135.4 | 91\% | 91\% |
| 50 | 114 | 844 | 0.1351 | 15.00\% | 15.00\% | 126.6 | 126.6 | 90\% | 90\% |
| 51 | 96 | 739 | 0.1299 | 15.00\% | 15.00\% | 110.9 | 110.9 | 87\% | 87\% |
| 52 | 86 | 660 | 0.1303 | 15.00\% | 15.00\% | 99.0 | 99.0 | 87\% | 87\% |
| 53 | 74 | 532 | 0.1391 | 15.00\% | 15.00\% | 79.8 | 79.8 | 93\% | 93\% |
| 54 | 63 | 442 | 0.1425 | 15.00\% | 15.00\% | 66.3 | 66.3 | 95\% | 95\% |
| 55 | 41 | 348 | 0.1178 | 15.00\% | 15.00\% | 52.2 | 52.2 | 79\% | 79\% |
| 56 | 27 | 249 | 0.1084 | 15.00\% | 15.00\% | 37.4 | 37.4 | 72\% | 72\% |
| 57 | 28 | 197 | 0.1421 | 15.00\% | 15.00\% | 29.6 | 29.6 | 95\% | 95\% |
| 58 | 15 | 144 | 0.1042 | 15.00\% | 15.00\% | 21.6 | 21.6 | 69\% | 69\% |
| 59 | 15 | 100 | 0.1500 | 15.00\% | 15.00\% | 15.0 | 15.0 | 100\% | 100\% |
| 60 | 5 | 79 | 0.0633 | 20.00\% | 20.00\% | 15.8 | 15.8 | 32\% | 32\% |
| 61 | 4 | 51 | 0.0784 | 30.00\% | 30.00\% | 15.3 | 15.3 | 26\% | 26\% |
| 62 | 26 | 41 | 0.6341 | 50.00\% | 50.00\% | 20.5 | 20.5 | 127\% | 127\% |
| 63 | 15 | 18 | 0.8333 | 100.00\% | 100.00\% | 18.0 | 18.0 | 83\% | 83\% |
| 64 | 1 | 1 | 1.0000 | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 1,526 | 11,435 |  |  |  | 1,512.2 | 1,512.2 | 101\% | 101\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 1,526 | 11,435 |  |  |  | 1,512.2 | 1,512.2 | 101\% | 101\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY MEN AND WOMEN

|  | TABLE 4A GROUPED |  |  | Assumed | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  | pected |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40-44 | 1,457 | 3,363 | 0.4332 | 60.00\% | 60.00\% | 2,017.8 | 2,017.8 | 72\% | 72\% |
| 45-59 | 802 | 1,944 | 0.4126 | 60.00\% | 60.00\% | 1,166.4 | 1,166.4 | 69\% | 69\% |
| 50-54 | 146 | 366 | 0.3989 | 60.00\% | 60.00\% | 219.6 | 219.6 | 66\% | 66\% |
| 55-59 | 4 | 9 | 0.4444 | 60.00\% | 60.00\% | 5.4 | 5.4 | 74\% | 74\% |
| 60-64 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 2,409 | 5,682 |  |  |  | 3,409.2 | 3,409.2 | 71\% | 71\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND

 RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY MEN AND WOMEN|  | TABLE 4B GROUPED |  |  | $\begin{array}{ll} & \text { 4-YEAR PERIOD ENDING 6/30/2013 } \\ \text { Assumed Probability } \\ \text { Expected Retirements }\end{array}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40-44 | 289 | 1,389 | 0.2081 | 15.00\% | 15.00\% | 208.4 | 208.4 | 139\% | 139\% |
| 45-59 | 221 | 1,098 | 0.2013 | 15.00\% | 15.00\% | 164.7 | 164.7 | 134\% | 134\% |
| 50-54 | 48 | 252 | 0.1905 | 15.00\% | 15.00\% | 37.8 | 37.8 | 127\% | 127\% |
| 55-59 | 2 | 7 | 0.2857 | 15.00\% | 15.00\% | 1.1 | 1.1 | 190\% | 190\% |
| 60-64 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 560 | 2,746 |  |  |  | 411.9 | 411.9 | 136\% | 136\% |

# NEW YORK CITY POLICE DEPARTMENT PENSION FUND 

## RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY

 MEN AND WOMEN| Age | TABLE 4C GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Retirements | Total Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed $(8) /(3)$ | Expected | Proposed | Expected $(2) /(7)$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40-44 | 218 | 1,582 | 0.1378 | 10.00\% | 10.00\% | 158.2 | 158.2 | 138\% | 138\% |
| 45-59 | 698 | 5,408 | 0.1291 | 11.95\% | 11.95\% | 646.1 | 646.1 | 108\% | 108\% |
| 50-54 | 433 | 3,217 | 0.1346 | 15.00\% | 15.00\% | 482.6 | 482.6 | 90\% | 90\% |
| 55-59 | 126 | 1,038 | 0.1214 | 15.00\% | 15.00\% | 155.7 | 155.7 | 81\% | 81\% |
| 60-64 | 51 | 190 | 0.2684 | 36.63\% | 36.63\% | 69.6 | 69.6 | 73\% | 73\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 1,526 | 11,435 |  |  |  | 1,512.2 | 1,512.2 | 101\% | 101\% |

# NEW YORK CITY POLICE DEPARTMENT PENSION FUND RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY MEN AND WOMEN 

| Age | TABLE 4A |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Retirements | Total Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 1,238 | 1,646 | 0.7521 | 60.00\% | 60.00\% | 987.6 | 987.6 | 125\% | 125\% |
| 41 | 1,275 | 2,332 | 0.5467 | 60.00\% | 60.00\% | 1,399.2 | 1,399.2 | 91\% | 91\% |
| 42 | 1,175 | 2,088 | 0.5627 | 60.00\% | 60.00\% | 1,252.8 | 1,252.8 | 94\% | 94\% |
| 43 | 1,104 | 1,898 | 0.5817 | 60.00\% | 60.00\% | 1,138.8 | 1,138.8 | 97\% | 97\% |
| 44 | 924 | 1,658 | 0.5573 | 60.00\% | 60.00\% | 994.8 | 994.8 | 93\% | 93\% |
| 45 | 793 | 1,382 | 0.5738 | 60.00\% | 60.00\% | 829.2 | 829.2 | 96\% | 96\% |
| 46 | 684 | 1,154 | 0.5927 | 60.00\% | 60.00\% | 692.4 | 692.4 | 99\% | 99\% |
| 47 | 504 | 900 | 0.5600 | 60.00\% | 60.00\% | 540.0 | 540.0 | 93\% | 93\% |
| 48 | 407 | 731 | 0.5568 | 60.00\% | 60.00\% | 438.6 | 438.6 | 93\% | 93\% |
| 49 | 354 | 611 | 0.5794 | 60.00\% | 60.00\% | 366.6 | 366.6 | 97\% | 97\% |
| 50 | 210 | 398 | 0.5276 | 60.00\% | 60.00\% | 238.8 | 238.8 | 88\% | 88\% |
| 51 | 124 | 238 | 0.5210 | 60.00\% | 60.00\% | 142.8 | 142.8 | 87\% | 87\% |
| 52 | 48 | 93 | 0.5161 | 60.00\% | 60.00\% | 55.8 | 55.8 | 86\% | 86\% |
| 53 | 10 | 35 | 0.2857 | 60.00\% | 60.00\% | 21.0 | 21.0 | 48\% | 48\% |
| 54 | 5 | 16 | 0.3125 | 60.00\% | 60.00\% | 9.6 | 9.6 | 52\% | 52\% |
| 55 | 5 | 7 | 0.7143 | 60.00\% | 60.00\% | 4.2 | 4.2 | 119\% | 119\% |
| 56 | 3 | 5 | 0.6000 | 60.00\% | 60.00\% | 3.0 | 3.0 | 100\% | 100\% |
| 57 | 0 | 1 | 0.0000 | 60.00\% | 60.00\% | 0.6 | 0.6 | 0\% | 0\% |
| 58 | 0 | 1 | 0.0000 | 60.00\% | 60.00\% | 0.6 | 0.6 | 0\% | 0\% |
| 59 | 1 | 1 | 1.0000 | 60.00\% | 60.00\% | 0.6 | 0.6 | 167\% | 167\% |
| 60 | 0 | 0 | N/A | 60.00\% | 60.00\% | 0 | 0 | 0\% | 0\% |
| 61 | 0 | 0 | N/A | 60.00\% | 60.00\% | 0 | 0 | 0\% | 0\% |
| 62 | 0 | 0 | N/A | 60.00\% | 60.00\% | 0 | 0 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 100.00\% | 100.00\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 8,864 | 15,195 |  |  |  | 9,117.0 | 9,117.0 | 97\% | 97\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 8,864 | 15,195 |  |  |  | 9,117.0 | 9,117.0 | 97\% | 97\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND

RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY MEN AND WOMEN

| Age | TABLE 4B |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Retirements |  | Actual/Expected |  |
|  | Actual Retirements | Total Exposed | Actual Rate (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 15 | 29 | 0.5172 | 15.00\% | 15.00\% | 4.4 | 4.4 | 345\% | 345\% |
| 41 | 99 | 498 | 0.1988 | 15.00\% | 15.00\% | 74.7 | 74.7 | 133\% | 133\% |
| 42 | 140 | 991 | 0.1413 | 15.00\% | 15.00\% | 148.7 | 148.7 | 94\% | 94\% |
| 43 | 139 | 887 | 0.1567 | 15.00\% | 15.00\% | 133.1 | 133.1 | 104\% | 104\% |
| 44 | 138 | 767 | 0.1799 | 15.00\% | 15.00\% | 115.1 | 115.1 | 120\% | 120\% |
| 45 | 127 | 686 | 0.1851 | 15.00\% | 15.00\% | 102.9 | 102.9 | 123\% | 123\% |
| 46 | 95 | 541 | 0.1756 | 15.00\% | 15.00\% | 81.2 | 81.2 | 117\% | 117\% |
| 47 | 74 | 423 | 0.1749 | 15.00\% | 15.00\% | 63.5 | 63.5 | 117\% | 117\% |
| 48 | 51 | 352 | 0.1449 | 15.00\% | 15.00\% | 52.8 | 52.8 | 97\% | 97\% |
| 49 | 66 | 316 | 0.2089 | 15.00\% | 15.00\% | 47.4 | 47.4 | 139\% | 139\% |
| 50 | 31 | 217 | 0.1429 | 15.00\% | 15.00\% | 32.6 | 32.6 | 95\% | 95\% |
| 51 | 39 | 190 | 0.2053 | 15.00\% | 15.00\% | 28.5 | 28.5 | 137\% | 137\% |
| 52 | 14 | 83 | 0.1687 | 15.00\% | 15.00\% | 12.5 | 12.5 | 112\% | 112\% |
| 53 | 6 | 43 | 0.1395 | 15.00\% | 15.00\% | 6.5 | 6.5 | 93\% | 93\% |
| 54 | 2 | 16 | 0.1250 | 15.00\% | 15.00\% | 2.4 | 2.4 | 83\% | 83\% |
| 55 | 1 | 9 | 0.1111 | 15.00\% | 15.00\% | 1.4 | 1.4 | 74\% | 74\% |
| 56 | 1 | 2 | 0.5000 | 15.00\% | 15.00\% | 0.3 | 0.3 | 333\% | 333\% |
| 57 | 1 | 3 | 0.3333 | 15.00\% | 15.00\% | 0.5 | 0.5 | 222\% | 222\% |
| 58 | 0 | 1 | 0.0000 | 15.00\% | 15.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 59 | 0 | 0 | N/A | 15.00\% | 15.00\% | 0 | 0 | 0\% | 0\% |
| 60 | 0 | 0 | N/A | 20.00\% | 20.00\% | 0 | 0 | 0\% | 0\% |
| 61 | 0 | 0 | N/A | 30.00\% | 30.00\% | 0 | 0 | 0\% | 0\% |
| 62 | 0 | 0 | N/A | 50.00\% | 50.00\% | 0 | 0 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 100.00\% | 100.00\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 1,039 | 6,054 |  |  |  | 908.1 | 908.1 | 114\% | 114\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 2.0 | 0 | 0\% | 0\% |
| Total | 1,039 | 6,054 |  |  |  | 910.1 | 908.1 | 114\% | 114\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND

 RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY MEN AND WOMEN| Age | TABLE 4C |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Retirements |  | Actual/Expected |  |
|  | Actual <br> Retirements | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed $(\mathbf{2}) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 3 | 6 | 0.5000 | 10.00\% | 10.00\% | 0.6 | 0.6 | 500\% | 500\% |
| 41 | 17 | 30 | 0.5667 | 10.00\% | 10.00\% | 3.0 | 3.0 | 567\% | 567\% |
| 42 | 61 | 406 | 0.1502 | 10.00\% | 10.00\% | 40.6 | 40.6 | 150\% | 150\% |
| 43 | 112 | 1,104 | 0.1014 | 10.00\% | 10.00\% | 110.4 | 110.4 | 101\% | 101\% |
| 44 | 154 | 1,618 | 0.0952 | 10.00\% | 10.00\% | 161.8 | 161.8 | 95\% | 95\% |
| 45 | 212 | 1,897 | 0.1118 | 10.00\% | 10.00\% | 189.7 | 189.7 | 112\% | 112\% |
| 46 | 216 | 1,977 | 0.1093 | 11.00\% | 11.00\% | 217.5 | 217.5 | 99\% | 99\% |
| 47 | 234 | 1,961 | 0.1193 | 12.00\% | 12.00\% | 235.3 | 235.3 | 99\% | 99\% |
| 48 | 207 | 1,809 | 0.1144 | 13.00\% | 13.00\% | 235.2 | 235.2 | 88\% | 88\% |
| 49 | 171 | 1,622 | 0.1054 | 14.00\% | 14.00\% | 227.1 | 227.1 | 75\% | 75\% |
| 50 | 176 | 1,467 | 0.1200 | 15.00\% | 15.00\% | 220.1 | 220.1 | 80\% | 80\% |
| 51 | 154 | 1,288 | 0.1196 | 15.00\% | 15.00\% | 193.2 | 193.2 | 80\% | 80\% |
| 52 | 131 | 1,118 | 0.1172 | 15.00\% | 15.00\% | 167.7 | 167.7 | 78\% | 78\% |
| 53 | 102 | 899 | 0.1135 | 15.00\% | 15.00\% | 134.9 | 134.9 | 76\% | 76\% |
| 54 | 91 | 739 | 0.1231 | 15.00\% | 15.00\% | 110.9 | 110.9 | 82\% | 82\% |
| 55 | 58 | 575 | 0.1009 | 15.00\% | 15.00\% | 86.3 | 86.3 | 67\% | 67\% |
| 56 | 52 | 453 | 0.1148 | 15.00\% | 15.00\% | 68.0 | 68.0 | 77\% | 77\% |
| 57 | 40 | 366 | 0.1093 | 15.00\% | 15.00\% | 54.9 | 54.9 | 73\% | 73\% |
| 58 | 32 | 291 | 0.1100 | 15.00\% | 15.00\% | 43.7 | 43.7 | 73\% | 73\% |
| 59 | 28 | 219 | 0.1279 | 15.00\% | 15.00\% | 32.9 | 32.9 | 85\% | 85\% |
| 60 | 16 | 193 | 0.0829 | 20.00\% | 20.00\% | 38.6 | 38.6 | 41\% | 41\% |
| 61 | 19 | 154 | 0.1234 | 30.00\% | 30.00\% | 46.2 | 46.2 | 41\% | 41\% |
| 62 | 68 | 125 | 0.5440 | 50.00\% | 50.00\% | 62.5 | 62.5 | 109\% | 109\% |
| 63 | 39 | 46 | 0.8478 | 100.00\% | 100.00\% | 46.0 | 46.0 | 85\% | 85\% |
| 64 | 1 | 2 | 0.5000 | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 1 | 0.0000 | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 1 | 0.0000 | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 2,394 | 20,367 |  |  |  | 2,726.7 | 2,726.7 | 88\% | 88\% |
| Other | 0 | 0 | N/A | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| Total | 2,394 | 20,367 |  |  |  | 2,726.7 | 2,726.7 | 88\% | 88\% |

# NEW YORK CITY POLICE DEPARTMENT PENSION FUND RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY MEN AND WOMEN 

|  | TABLE 4A GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected $(7) /(3)$ | Proposed $(\mathbf{8}) /(\mathbf{3})$ | Expected | Proposed | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40-44 | 5,716 | 9,622 | 0.5941 | 60.00\% | 60.00\% | 5,773.2 | 5,773.2 | 99\% | 99\% |
| 45-59 | 2,742 | 4,778 | 0.5739 | 60.00\% | 60.00\% | 2,866.8 | 2,866.8 | 96\% | 96\% |
| 50-54 | 397 | 780 | 0.5090 | 60.00\% | 60.00\% | 468.0 | 468.0 | 85\% | 85\% |
| 55-59 | 9 | 15 | 0.6000 | 60.00\% | 60.00\% | 9.0 | 9.0 | 100\% | 100\% |
| 60-64 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 8,864 | 15,195 |  |  |  | 9,117.0 | 9,117.0 | 97\% | 97\% |

NEW YORK CITY POLICE DEPARTMENT PENSION FUND
RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY MEN AND WOMEN

| Age | TABLE 4B GROUPED |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 <br> Expected Retirements <br> Actual/Expected |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Retirements | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) /(3) } \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | $\begin{gathered} \text { Proposed } \\ (8) /(3) \\ \hline \end{gathered}$ | Expected | Proposed | Expected $(2) /(7)$ | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40-44 | 531 | 3,172 | 0.1674 | 15.00\% | 15.00\% | 475.8 | 475.8 | 112\% | 112\% |
| 45-59 | 413 | 2,318 | 0.1782 | 15.00\% | 15.00\% | 347.7 | 347.7 | 119\% | 119\% |
| 50-54 | 92 | 549 | 0.1676 | 15.00\% | 15.00\% | 82.4 | 82.4 | 112\% | 112\% |
| 55-59 | 3 | 15 | 0.2000 | 15.00\% | 15.00\% | 2.3 | 2.3 | 133\% | 133\% |
| 60-64 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70+ | 0 | 0 | N/A |  |  | 2.0 | 0 | 0\% | 0\% |
| Total | 1,039 | 6,054 |  |  |  | 910.1 | 908.1 | 114\% | 114\% |

# NEW YORK CITY POLICE DEPARTMENT PENSION FUND 

 RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY MEN AND WOMEN|  | TABLE 4C GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40-44 | 347 | 3,164 | 0.1097 | 10.00\% | 10.00\% | 316.4 | 316.4 | 110\% | 110\% |
| 45-59 | 1,040 | 9,266 | 0.1122 | 11.92\% | 11.92\% | 1,104.7 | 1,104.7 | 94\% | 94\% |
| 50-54 | 654 | 5,511 | 0.1187 | 15.00\% | 15.00\% | 826.7 | 826.7 | 79\% | 79\% |
| 55-59 | 210 | 1,904 | 0.1103 | 15.00\% | 15.00\% | 285.6 | 285.6 | 74\% | 74\% |
| 60-64 | 143 | 520 | 0.2750 | 37.17\% | 37.17\% | 193.3 | 193.3 | 74\% | 74\% |
| 65-69 | 0 | 2 | 0.0000 | 0.00\% | 0.00\% | 0 | 0 | 0\% | 0\% |
| 70+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 2,394 | 20,367 |  |  |  | 2,726.7 | 2,726.7 | 88\% | 88\% |

NEW YORK CITY POLICE DEPARTMENT PENSION FUND RETIREMENT EXPERIENCE - ALL EXPERIENCE COMBINED MEN AND WOMEN

| Plan <br> Year <br> Ending <br> June 30, | TABLE 4D <br> Life Years Exposed | Actual Retirements | Expected <br> Retirements | 10-YEAR PERIOD ENDING 6/30/2013 Retirement Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / <br> Expected | Actual $(3) /(2)$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 3,172 | 1,697 | 620.8 | 273\% | 53.50\% | 19.57\% |
| 2005 | 3,811 | 1,971 | 851.2 | 232\% | 51.72\% | 22.34\% |
| 2006 | 3,836 | 1,747 | 803.2 | 218\% | 45.54\% | 20.94\% |
| 2007 | 4,048 | 1,453 | 862.4 | 168\% | 35.89\% | 21.30\% |
| 2008 | 3,716 | 809 | 890.7 | 91\% | 21.77\% | 23.97\% |
| 2009 | 3,491 | 399 | 752.2 | 53\% | 11.43\% | 21.55\% |
| 2010 | 4,077 | 817 | 935.4 | 87\% | 20.04\% | 22.94\% |
| 2011 | 5,468 | 1,532 | 1500.0 | 102\% | 28.02\% | 27.43\% |
| 2012 | 5,209 | 1,354 | 1008.5 | 134\% | 25.99\% | 19.36\% |
| 2013 | 5,164 | 832 | 1309.0 | 64\% | 16.11\% | 25.35\% |
| Total | 41,992 | 12,611 | 9,533.4 | 132\% | 30.03\% | 22.70\% |

[^24]
## NEW YORK CITY POLICE DEPARTMENT PENSION FUND ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS

MEN

| Age | TABLE 5A |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual Deaths | Total <br> Exposed | Actual Rate (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.040\% | 0.040\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 1 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 259 | 0.00000 | 0.040\% | 0.040\% | 0.1 | 0.1 | 0\% | 0\% |
| 23 | 0 | 1,038 | 0.00000 | 0.040\% | 0.040\% | 0.4 | 0.4 | 0\% | 0\% |
| 24 | 1 | 1,925 | 0.00052 | 0.040\% | 0.040\% | 0.8 | 0.8 | 130\% | 130\% |
| 25 | 3 | 2,817 | 0.00106 | 0.040\% | 0.040\% | 1.1 | 1.1 | 266\% | 266\% |
| 26 | 1 | 3,464 | 0.00029 | 0.040\% | 0.040\% | 1.4 | 1.4 | 72\% | 72\% |
| 27 | 5 | 3,911 | 0.00128 | 0.040\% | 0.040\% | 1.6 | 1.6 | 320\% | 320\% |
| 28 | 3 | 4,187 | 0.00072 | 0.040\% | 0.040\% | 1.7 | 1.7 | 179\% | 179\% |
| 29 | 2 | 4,339 | 0.00046 | 0.040\% | 0.040\% | 1.7 | 1.7 | 115\% | 115\% |
| 30 | 2 | 4,433 | 0.00045 | 0.040\% | 0.040\% | 1.8 | 1.8 | 113\% | 113\% |
| 31 | 2 | 4,352 | 0.00046 | 0.040\% | 0.040\% | 1.7 | 1.7 | 115\% | 115\% |
| 32 | 2 | 4,294 | 0.00047 | 0.040\% | 0.040\% | 1.7 | 1.7 | 116\% | 116\% |
| 33 | 1 | 4,176 | 0.00024 | 0.040\% | 0.040\% | 1.7 | 1.7 | 60\% | 60\% |
| 34 | 1 | 4,203 | 0.00024 | 0.040\% | 0.040\% | 1.7 | 1.7 | 59\% | 59\% |
| 35 | 1 | 4,171 | 0.00024 | 0.040\% | 0.040\% | 1.7 | 1.7 | 60\% | 60\% |
| 36 | 1 | 4,184 | 0.00024 | 0.042\% | 0.042\% | 1.8 | 1.8 | 57\% | 57\% |
| 37 | 1 | 4,382 | 0.00023 | 0.044\% | 0.044\% | 1.9 | 1.9 | 52\% | 52\% |
| 38 | 2 | 4,861 | 0.00041 | 0.046\% | 0.046\% | 2.2 | 2.2 | 89\% | 89\% |
| 39 | 4 | 5,468 | 0.00073 | 0.048\% | 0.048\% | 2.6 | 2.6 | 152\% | 152\% |
| 40 | 2 | 5,922 | 0.00034 | 0.050\% | 0.050\% | 3.0 | 3.0 | 68\% | 68\% |
| 41 | 2 | 5,931 | 0.00034 | 0.060\% | 0.060\% | 3.6 | 3.6 | 56\% | 56\% |
| 42 | 3 | 5,684 | 0.00053 | 0.070\% | 0.070\% | 4.0 | 4.0 | 75\% | 75\% |
| 43 | 1 | 5,225 | 0.00019 | 0.080\% | 0.080\% | 4.2 | 4.2 | 24\% | 24\% |
| 44 | 3 | 4,748 | 0.00063 | 0.090\% | 0.090\% | 4.3 | 4.3 | 70\% | 70\% |
| 45 | 2 | 4,215 | 0.00047 | 0.100\% | 0.100\% | 4.2 | 4.2 | 47\% | 47\% |
| 46 | 1 | 3,520 | 0.00028 | 0.110\% | 0.110\% | 3.9 | 3.9 | 26\% | 26\% |
| 47 | 1 | 2,902 | 0.00034 | 0.120\% | 0.120\% | 3.5 | 3.5 | 29\% | 29\% |
| 48 | 3 | 2,338 | 0.00128 | 0.130\% | 0.130\% | 3.0 | 3.0 | 99\% | 99\% |
| 49 | 1 | 1,857 | 0.00054 | 0.140\% | 0.140\% | 2.6 | 2.6 | 38\% | 38\% |
| 50 | 2 | 1,396 | 0.00143 | 0.150\% | 0.150\% | 2.1 | 2.1 | 96\% | 96\% |
| 51 | 1 | 1,065 | 0.00094 | 0.160\% | 0.160\% | 1.7 | 1.7 | 59\% | 59\% |
| 52 | 0 | 805 | 0.00000 | 0.170\% | 0.170\% | 1.4 | 1.4 | 0\% | 0\% |
| 53 | 0 | 609 | 0.00000 | 0.180\% | 0.180\% | 1.1 | 1.1 | 0\% | 0\% |
| 54 | 0 | 472 | 0.00000 | 0.190\% | 0.190\% | 0.9 | 0.9 | 0\% | 0\% |
| 55 | 0 | 367 | 0.00000 | 0.200\% | 0.200\% | 0.7 | 0.7 | 0\% | 0\% |
| 56 | 0 | 256 | 0.00000 | 0.220\% | 0.220\% | 0.6 | 0.6 | 0\% | 0\% |
| 57 | 0 | 197 | 0.00000 | 0.240\% | 0.240\% | 0.5 | 0.5 | 0\% | 0\% |
| 58 | 0 | 148 | 0.00000 | 0.260\% | 0.260\% | 0.4 | 0.4 | 0\% | 0\% |
| 59 | 0 | 103 | 0.00000 | 0.280\% | 0.280\% | 0.3 | 0.3 | 0\% | 0\% |
| 60 | 1 | 81 | 0.01235 | 0.300\% | 0.300\% | 0.2 | 0.2 | 412\% | 412\% |
| 61 | 1 | 58 | 0.01724 | 0.320\% | 0.320\% | 0.2 | 0.2 | 539\% | 539\% |
| 62 | 0 | 44 | 0.00000 | 0.340\% | 0.340\% | 0.1 | 0.1 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 0.340\% | 0.340\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.340\% | 0.340\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.340\% | 0.340\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.340\% | 0.340\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.340\% | 0.340\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.340\% | 0.340\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.340\% | 0.340\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.340\% | 0.340\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.340\% | 0.340\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.340\% | 0.340\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.340\% | 0.340\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.340\% | 0.340\% | 0 | 0 | 0\% | 0\% |
| Total | 56 | 114,408 |  |  |  | 73.9 | 73.9 | 76\% | 76\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND

 ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN|  | TABLE 5A GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed (8) / (3) | Expected | Proposed | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 1 | 3,223 | 0.00031 | 0.040\% | 0.040\% | 1.3 | 1.3 | 78\% | 78\% |
| 25-29 | 14 | 18,718 | 0.00075 | 0.040\% | 0.040\% | 7.5 | 7.5 | 187\% | 187\% |
| 30-34 | 8 | 21,458 | 0.00037 | 0.040\% | 0.040\% | 8.6 | 8.6 | 93\% | 93\% |
| 35-39 | 9 | 23,066 | 0.00039 | 0.044\% | 0.044\% | 10.2 | 10.2 | 88\% | 88\% |
| 40-44 | 11 | 27,510 | 0.00040 | 0.069\% | 0.069\% | 19.0 | 19.0 | 58\% | 58\% |
| 45-49 | 8 | 14,832 | 0.00054 | 0.116\% | 0.116\% | 17.2 | 17.2 | 46\% | 46\% |
| 50-54 | 3 | 4,347 | 0.00069 | 0.165\% | 0.165\% | 7.2 | 7.2 | 42\% | 42\% |
| 55-59 | 0 | 1,071 | 0.00000 | 0.228\% | 0.228\% | 2.4 | 2.4 | 0\% | 0\% |
| 60-64 | 2 | 183 | 0.01093 | 0.316\% | 0.316\% | 0.6 | 0.6 | 346\% | 346\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 56 | 114,408 |  |  |  | 73.9 | 73.9 | 76\% | 76\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN

| Age | TABLE 5A |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.040\% | 0.040\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 17 | 0.00000 | 0.040\% | 0.040\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 1 | 1,281 | 0.00078 | 0.040\% | 0.040\% | 0.5 | 0.5 | 195\% | 195\% |
| 23 | 3 | 3,572 | 0.00084 | 0.040\% | 0.040\% | 1.4 | 1.4 | 210\% | 210\% |
| 24 | 6 | 5,588 | 0.00107 | 0.040\% | 0.040\% | 2.2 | 2.2 | 268\% | 268\% |
| 25 | 7 | 7,219 | 0.00097 | 0.040\% | 0.040\% | 2.9 | 2.9 | 242\% | 242\% |
| 26 | 1 | 8,426 | 0.00012 | 0.040\% | 0.040\% | 3.4 | 3.4 | 30\% | 30\% |
| 27 | 8 | 9,169 | 0.00087 | 0.040\% | 0.040\% | 3.7 | 3.7 | 218\% | 218\% |
| 28 | 8 | 9,751 | 0.00082 | 0.040\% | 0.040\% | 3.9 | 3.9 | 205\% | 205\% |
| 29 | 6 | 10,082 | 0.00060 | 0.040\% | 0.040\% | 4.0 | 4.0 | 149\% | 149\% |
| 30 | 4 | 10,430 | 0.00038 | 0.040\% | 0.040\% | 4.2 | 4.2 | 96\% | 96\% |
| 31 | 4 | 10,681 | 0.00037 | 0.040\% | 0.040\% | 4.3 | 4.3 | 94\% | 94\% |
| 32 | 3 | 11,273 | 0.00027 | 0.040\% | 0.040\% | 4.5 | 4.5 | 67\% | 67\% |
| 33 | 3 | 12,018 | 0.00025 | 0.040\% | 0.040\% | 4.8 | 4.8 | 62\% | 62\% |
| 34 | 9 | 12,781 | 0.00070 | 0.040\% | 0.040\% | 5.1 | 5.1 | 176\% | 176\% |
| 35 | 1 | 13,385 | 0.00007 | 0.040\% | 0.040\% | 5.4 | 5.4 | 19\% | 19\% |
| 36 | 7 | 14,064 | 0.00050 | 0.042\% | 0.042\% | 5.9 | 5.9 | 119\% | 119\% |
| 37 | 7 | 14,717 | 0.00048 | 0.044\% | 0.044\% | 6.5 | 6.5 | 108\% | 108\% |
| 38 | 7 | 15,457 | 0.00045 | 0.046\% | 0.046\% | 7.1 | 7.1 | 98\% | 98\% |
| 39 | 8 | 15,978 | 0.00050 | 0.048\% | 0.048\% | 7.7 | 7.7 | 104\% | 104\% |
| 40 | 9 | 16,058 | 0.00056 | 0.050\% | 0.050\% | 8.0 | 8.0 | 112\% | 112\% |
| 41 | 6 | 15,022 | 0.00040 | 0.060\% | 0.060\% | 9.0 | 9.0 | 67\% | 67\% |
| 42 | 7 | 13,431 | 0.00052 | 0.070\% | 0.070\% | 9.4 | 9.4 | 74\% | 74\% |
| 43 | 5 | 11,729 | 0.00043 | 0.080\% | 0.080\% | 9.4 | 9.4 | 53\% | 53\% |
| 44 | 8 | 10,054 | 0.00080 | 0.090\% | 0.090\% | 9.0 | 9.0 | 88\% | 88\% |
| 45 | 3 | 8,482 | 0.00035 | 0.100\% | 0.100\% | 8.5 | 8.5 | 35\% | 35\% |
| 46 | 4 | 6,901 | 0.00058 | 0.110\% | 0.110\% | 7.6 | 7.6 | 53\% | 53\% |
| 47 | 3 | 5,494 | 0.00055 | 0.120\% | 0.120\% | 6.6 | 6.6 | 46\% | 46\% |
| 48 | 9 | 4,321 | 0.00208 | 0.130\% | 0.130\% | 5.6 | 5.6 | 160\% | 160\% |
| 49 | 3 | 3,362 | 0.00089 | 0.140\% | 0.140\% | 4.7 | 4.7 | 64\% | 64\% |
| 50 | 4 | 2,489 | 0.00161 | 0.150\% | 0.150\% | 3.7 | 3.7 | 107\% | 107\% |
| 51 | 3 | 1,851 | 0.00162 | 0.160\% | 0.160\% | 3.0 | 3.0 | 101\% | 101\% |
| 52 | 1 | 1,345 | 0.00074 | 0.170\% | 0.170\% | 2.3 | 2.3 | 44\% | 44\% |
| 53 | 0 | 996 | 0.00000 | 0.180\% | 0.180\% | 1.8 | 1.8 | 0\% | 0\% |
| 54 | 1 | 787 | 0.00127 | 0.190\% | 0.190\% | 1.5 | 1.5 | 67\% | 67\% |
| 55 | 0 | 604 | 0.00000 | 0.200\% | 0.200\% | 1.2 | 1.2 | 0\% | 0\% |
| 56 | 1 | 462 | 0.00216 | 0.220\% | 0.220\% | 1.0 | 1.0 | 98\% | 98\% |
| 57 | 0 | 372 | 0.00000 | 0.240\% | 0.240\% | 0.9 | 0.9 | 0\% | 0\% |
| 58 | 0 | 297 | 0.00000 | 0.260\% | 0.260\% | 0.8 | 0.8 | 0\% | 0\% |
| 59 | 1 | 225 | 0.00444 | 0.280\% | 0.280\% | 0.6 | 0.6 | 159\% | 159\% |
| 60 | 1 | 198 | 0.00505 | 0.300\% | 0.300\% | 0.6 | 0.6 | 168\% | 168\% |
| 61 | 1 | 163 | 0.00613 | 0.320\% | 0.320\% | 0.5 | 0.5 | 192\% | 192\% |
| 62 | 0 | 132 | 0.00000 | 0.340\% | 0.340\% | 0.4 | 0.4 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 0.340\% | 0.340\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.340\% | 0.340\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.340\% | 0.340\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.340\% | 0.340\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.340\% | 0.340\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.340\% | 0.340\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.340\% | 0.340\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.340\% | 0.340\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.340\% | 0.340\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.340\% | 0.340\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.340\% | 0.340\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.340\% | 0.340\% | 0 | 0 | 0\% | 0\% |
| Total | 163 | 290,664 |  |  |  | 173.7 | 173.7 | 94\% | 94\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND

 ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN

NEW YORK CITY POLICE DEPARTMENT PENSION FUND ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Plan Year Ending June 30, | TABLE 5B <br> Life Years <br> Exposed | Actual Deaths | Expected Deaths | 10-YEAR PERIOD ENDING 6/30/2013 <br> Mortality Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / <br> Expected | Actual (3) / (2) | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 36,179 | 28 | 19.1 | 146\% | 0.077\% | 0.053\% |
| 2005 | 35,106 | 15 | 18.8 | 80\% | 0.043\% | 0.053\% |
| 2006 | 35,431 | 12 | 18.9 | 64\% | 0.034\% | 0.053\% |
| 2007 | 35,278 | 24 | 18.9 | 127\% | 0.068\% | 0.054\% |
| 2008 | 34,946 | 17 | 19.0 | 89\% | 0.049\% | 0.054\% |
| 2009 | 35,402 | 27 | 19.8 | 136\% | 0.076\% | 0.056\% |
| 2010 | 35,564 | 23 | 20.8 | 111\% | 0.065\% | 0.058\% |
| 2011 | 34,578 | 10 | 21.1 | 47\% | 0.029\% | 0.061\% |
| 2012 | 33,685 | 15 | 21.1 | 71\% | 0.045\% | 0.063\% |
| 2013 | 34,218 | 17 | 21.7 | 78\% | 0.050\% | 0.063\% |
| Total | 350,387 | 188 | 199.2 | 94\% | 0.054\% | 0.057\% |

*The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 20 and over 75.

# NEW YORK CITY POLICE DEPARTMENT PENSION FUND ACCIDENTAL MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN 

| Age | TABLE 6A |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.010\% | 0.008\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 1 | 0.00000 | 0.010\% | 0.008\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 294 | 0.00000 | 0.010\% | 0.008\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 1,207 | 0.00000 | 0.010\% | 0.008\% | 0.1 | 0.1 | 0\% | 0\% |
| 24 | 0 | 2,276 | 0.00000 | 0.010\% | 0.008\% | 0.2 | 0.2 | 0\% | 0\% |
| 25 | 0 | 3,315 | 0.00000 | 0.010\% | 0.008\% | 0.3 | 0.3 | 0\% | 0\% |
| 26 | 0 | 4,085 | 0.00000 | 0.010\% | 0.008\% | 0.4 | 0.3 | 0\% | 0\% |
| 27 | 0 | 4,649 | 0.00000 | 0.010\% | 0.008\% | 0.5 | 0.4 | 0\% | 0\% |
| 28 | 0 | 5,015 | 0.00000 | 0.010\% | 0.008\% | 0.5 | 0.4 | 0\% | 0\% |
| 29 | 0 | 5,275 | 0.00000 | 0.010\% | 0.008\% | 0.5 | 0.4 | 0\% | 0\% |
| 30 | 0 | 5,394 | 0.00000 | 0.010\% | 0.008\% | 0.5 | 0.4 | 0\% | 0\% |
| 31 | 0 | 5,322 | 0.00000 | 0.011\% | 0.009\% | 0.6 | 0.5 | 0\% | 0\% |
| 32 | 0 | 5,333 | 0.00000 | 0.012\% | 0.010\% | 0.6 | 0.5 | 0\% | 0\% |
| 33 | 0 | 5,190 | 0.00000 | 0.013\% | 0.010\% | 0.7 | 0.5 | 0\% | 0\% |
| 34 | 0 | 5,222 | 0.00000 | 0.014\% | 0.011\% | 0.7 | 0.6 | 0\% | 0\% |
| 35 | 0 | 5,190 | 0.00000 | 0.015\% | 0.012\% | 0.8 | 0.6 | 0\% | 0\% |
| 36 | 0 | 5,143 | 0.00000 | 0.016\% | 0.013\% | 0.8 | 0.7 | 0\% | 0\% |
| 37 | 0 | 5,346 | 0.00000 | 0.017\% | 0.014\% | 0.9 | 0.7 | 0\% | 0\% |
| 38 | 1 | 5,919 | 0.00017 | 0.018\% | 0.014\% | 1.1 | 0.9 | 94\% | 117\% |
| 39 | 1 | 6,603 | 0.00015 | 0.019\% | 0.015\% | 1.3 | 1.0 | 80\% | 100\% |
| 40 | 1 | 7,148 | 0.00014 | 0.020\% | 0.016\% | 1.4 | 1.1 | 70\% | 87\% |
| 41 | 0 | 7,105 | 0.00000 | 0.021\% | 0.017\% | 1.5 | 1.2 | 0\% | 0\% |
| 42 | 1 | 6,773 | 0.00015 | 0.022\% | 0.018\% | 1.5 | 1.2 | 67\% | 84\% |
| 43 | 1 | 6,187 | 0.00016 | 0.023\% | 0.018\% | 1.4 | 1.1 | 70\% | 88\% |
| 44 | 0 | 5,591 | 0.00000 | 0.024\% | 0.019\% | 1.3 | 1.1 | 0\% | 0\% |
| 45 | 0 | 5,027 | 0.00000 | 0.025\% | 0.020\% | 1.3 | 1.0 | 0\% | 0\% |
| 46 | 1 | 4,234 | 0.00024 | 0.026\% | 0.021\% | 1.1 | 0.9 | 91\% | 114\% |
| 47 | 1 | 3,534 | 0.00028 | 0.027\% | 0.022\% | 1.0 | 0.8 | 105\% | 131\% |
| 48 | 0 | 2,873 | 0.00000 | 0.028\% | 0.022\% | 0.8 | 0.6 | 0\% | 0\% |
| 49 | 3 | 2,271 | 0.00132 | 0.029\% | 0.023\% | 0.7 | 0.5 | 456\% | 569\% |
| 50 | 0 | 1,705 | 0.00000 | 0.030\% | 0.024\% | 0.5 | 0.4 | 0\% | 0\% |
| 51 | 1 | 1,277 | 0.00078 | 0.031\% | 0.025\% | 0.4 | 0.3 | 253\% | 316\% |
| 52 | 0 | 949 | 0.00000 | 0.032\% | 0.026\% | 0.3 | 0.2 | 0\% | 0\% |
| 53 | 0 | 704 | 0.00000 | 0.033\% | 0.026\% | 0.2 | 0.2 | 0\% | 0\% |
| 54 | 0 | 536 | 0.00000 | 0.034\% | 0.027\% | 0.2 | 0.1 | 0\% | 0\% |
| 55 | 0 | 409 | 0.00000 | 0.035\% | 0.028\% | 0.1 | 0.1 | 0\% | 0\% |
| 56 | 0 | 275 | 0.00000 | 0.036\% | 0.029\% | 0.1 | 0.1 | 0\% | 0\% |
| 57 | 0 | 211 | 0.00000 | 0.037\% | 0.030\% | 0.1 | 0.1 | 0\% | 0\% |
| 58 | 0 | 158 | 0.00000 | 0.038\% | 0.030\% | 0.1 | 0.0 | 0\% | 0\% |
| 59 | 0 | 109 | 0.00000 | 0.039\% | 0.031\% | 0.0 | 0.0 | 0\% | 0\% |
| 60 | 0 | 86 | 0.00000 | 0.040\% | 0.032\% | 0.0 | 0.0 | 0\% | 0\% |
| 61 | 0 | 59 | 0.00000 | 0.041\% | 0.033\% | 0.0 | 0.0 | 0\% | 0\% |
| 62 | 0 | 45 | 0.00000 | 0.042\% | 0.034\% | 0.0 | 0.0 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 0.042\% | 0.034\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.042\% | 0.034\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.042\% | 0.034\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.042\% | 0.034\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.042\% | 0.034\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.042\% | 0.034\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.042\% | 0.034\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.042\% | 0.034\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.042\% | 0.034\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.042\% | 0.034\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.042\% | 0.034\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.042\% | 0.034\% | 0 | 0 | 0\% | 0\% |
| Total | 11 | 138,045 |  |  |  | 24.7 | 19.8 | 45\% | 56\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND ACCIDENTAL MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Age | TABLE 6A GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed $(8) /(3)$ | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 3,778 | 0.00000 | 0.010\% | 0.008\% | 0.4 | 0.3 | 0\% | 0\% |
| 25-29 | 0 | 22,339 | 0.00000 | 0.010\% | 0.008\% | 2.2 | 1.8 | 0\% | 0\% |
| 30-34 | 0 | 26,461 | 0.00000 | 0.012\% | 0.010\% | 3.2 | 2.5 | 0\% | 0\% |
| 35-39 | 2 | 28,201 | 0.00007 | 0.017\% | 0.014\% | 4.8 | 3.9 | 41\% | 52\% |
| 40-44 | 3 | 32,804 | 0.00009 | 0.022\% | 0.018\% | 7.2 | 5.7 | 42\% | 52\% |
| 45-49 | 5 | 17,939 | 0.00028 | 0.027\% | 0.021\% | 4.8 | 3.8 | 105\% | 131\% |
| 50-54 | 1 | 5,171 | 0.00019 | 0.031\% | 0.025\% | 1.6 | 1.3 | 62\% | 77\% |
| 55-59 | 0 | 1,162 | 0.00000 | 0.036\% | 0.029\% | 0.4 | 0.3 | 0\% | 0\% |
| 60-64 | 0 | 190 | 0.00000 | 0.041\% | 0.033\% | 0.1 | 0.1 | 0\% | 0\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 11 | 138,045 |  |  |  | 24.7 | 19.8 | 45\% | 56\% |

# NEW YORK CITY POLICE DEPARTMENT PENSION FUND ACCIDENTAL MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN 

| Age | TABLE 6A |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.010\% | 0.008\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 20 | 0.00000 | 0.010\% | 0.008\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 1,468 | 0.00000 | 0.010\% | 0.008\% | 0.1 | 0.1 | 0\% | 0\% |
| 23 | 0 | 4,210 | 0.00000 | 0.010\% | 0.008\% | 0.4 | 0.3 | 0\% | 0\% |
| 24 | 1 | 6,645 | 0.00015 | 0.010\% | 0.008\% | 0.7 | 0.5 | 150\% | 188\% |
| 25 | 0 | 8,586 | 0.00000 | 0.010\% | 0.008\% | 0.9 | 0.7 | 0\% | 0\% |
| 26 | 0 | 10,131 | 0.00000 | 0.010\% | 0.008\% | 1.0 | 0.8 | 0\% | 0\% |
| 27 | 1 | 11,086 | 0.00009 | 0.010\% | 0.008\% | 1.1 | 0.9 | 90\% | 113\% |
| 28 | 1 | 11,827 | 0.00008 | 0.010\% | 0.008\% | 1.2 | 0.9 | 85\% | 106\% |
| 29 | 0 | 12,307 | 0.00000 | 0.010\% | 0.008\% | 1.2 | 1.0 | 0\% | 0\% |
| 30 | 0 | 12,746 | 0.00000 | 0.010\% | 0.008\% | 1.3 | 1.0 | 0\% | 0\% |
| 31 | 1 | 13,064 | 0.00008 | 0.011\% | 0.009\% | 1.4 | 1.1 | 70\% | 87\% |
| 32 | 0 | 13,797 | 0.00000 | 0.012\% | 0.010\% | 1.7 | 1.3 | 0\% | 0\% |
| 33 | 0 | 14,647 | 0.00000 | 0.013\% | 0.010\% | 1.9 | 1.5 | 0\% | 0\% |
| 34 | 1 | 15,567 | 0.00006 | 0.014\% | 0.011\% | 2.2 | 1.7 | 46\% | 57\% |
| 35 | 1 | 16,244 | 0.00006 | 0.015\% | 0.012\% | 2.4 | 1.9 | 41\% | 51\% |
| 36 | 1 | 16,991 | 0.00006 | 0.016\% | 0.013\% | 2.7 | 2.2 | 37\% | 46\% |
| 37 | 1 | 17,677 | 0.00006 | 0.017\% | 0.014\% | 3.0 | 2.4 | 33\% | 42\% |
| 38 | 2 | 18,516 | 0.00011 | 0.018\% | 0.014\% | 3.3 | 2.7 | 60\% | 75\% |
| 39 | 6 | 19,153 | 0.00031 | 0.019\% | 0.015\% | 3.6 | 2.9 | 165\% | 206\% |
| 40 | 1 | 19,256 | 0.00005 | 0.020\% | 0.016\% | 3.9 | 3.1 | 26\% | 32\% |
| 41 | 2 | 18,024 | 0.00011 | 0.021\% | 0.017\% | 3.8 | 3.0 | 53\% | 66\% |
| 42 | 2 | 16,182 | 0.00012 | 0.022\% | 0.018\% | 3.6 | 2.8 | 56\% | 70\% |
| 43 | 2 | 14,158 | 0.00014 | 0.023\% | 0.018\% | 3.3 | 2.6 | 61\% | 77\% |
| 44 | 1 | 12,116 | 0.00008 | 0.024\% | 0.019\% | 2.9 | 2.3 | 34\% | 43\% |
| 45 | 1 | 10,240 | 0.00010 | 0.025\% | 0.020\% | 2.6 | 2.0 | 39\% | 49\% |
| 46 | 3 | 8,354 | 0.00036 | 0.026\% | 0.021\% | 2.2 | 1.7 | 138\% | 173\% |
| 47 | 2 | 6,701 | 0.00030 | 0.027\% | 0.022\% | 1.8 | 1.4 | 111\% | 138\% |
| 48 | 0 | 5,285 | 0.00000 | 0.028\% | 0.022\% | 1.5 | 1.2 | 0\% | 0\% |
| 49 | 4 | 4,076 | 0.00098 | 0.029\% | 0.023\% | 1.2 | 0.9 | 338\% | 423\% |
| 50 | 0 | 2,988 | 0.00000 | 0.030\% | 0.024\% | 0.9 | 0.7 | 0\% | 0\% |
| 51 | 1 | 2,185 | 0.00046 | 0.031\% | 0.025\% | 0.7 | 0.5 | 148\% | 185\% |
| 52 | 0 | 1,550 | 0.00000 | 0.032\% | 0.026\% | 0.5 | 0.4 | 0\% | 0\% |
| 53 | 0 | 1,134 | 0.00000 | 0.033\% | 0.026\% | 0.4 | 0.3 | 0\% | 0\% |
| 54 | 0 | 873 | 0.00000 | 0.034\% | 0.027\% | 0.3 | 0.2 | 0\% | 0\% |
| 55 | 0 | 661 | 0.00000 | 0.035\% | 0.028\% | 0.2 | 0.2 | 0\% | 0\% |
| 56 | 0 | 491 | 0.00000 | 0.036\% | 0.029\% | 0.2 | 0.1 | 0\% | 0\% |
| 57 | 0 | 390 | 0.00000 | 0.037\% | 0.030\% | 0.1 | 0.1 | 0\% | 0\% |
| 58 | 0 | 308 | 0.00000 | 0.038\% | 0.030\% | 0.1 | 0.1 | 0\% | 0\% |
| 59 | 0 | 232 | 0.00000 | 0.039\% | 0.031\% | 0.1 | 0.1 | 0\% | 0\% |
| 60 | 1 | 204 | 0.00490 | 0.040\% | 0.032\% | 0.1 | 0.1 | 1225\% | 1532\% |
| 61 | 1 | 164 | 0.00610 | 0.041\% | 0.033\% | 0.1 | 0.1 | 1487\% | 1859\% |
| 62 | 0 | 133 | 0.00000 | 0.042\% | 0.034\% | 0.1 | 0.0 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 0.042\% | 0.034\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.042\% | 0.034\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.042\% | 0.034\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.042\% | 0.034\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.042\% | 0.034\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.042\% | 0.034\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.042\% | 0.034\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.042\% | 0.034\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.042\% | 0.034\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.042\% | 0.034\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.042\% | 0.034\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.042\% | 0.034\% | 0 | 0 | 0\% | 0\% |
| Total | 37 | 350,387 |  |  |  | 60.5 | 48.4 | 61\% | 76\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND ACCIDENTAL MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Age | TABLE 6A GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate (2) / (3) | Expected <br> (7) / (3) | Proposed $(\mathbf{8}) /(3)$ | Expected | Proposed | Expected (2) / (7) | Proposed $(\mathbf{2}) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 1 | 12,343 | 0.00008 | 0.010\% | 0.008\% | 1.2 | 1.0 | 81\% | 101\% |
| 25-29 | 2 | 53,937 | 0.00004 | 0.010\% | 0.008\% | 5.4 | 4.3 | 37\% | 46\% |
| 30-34 | 2 | 69,821 | 0.00003 | 0.012\% | 0.010\% | 8.5 | 6.8 | 24\% | 30\% |
| 35-39 | 11 | 88,581 | 0.00012 | 0.017\% | 0.014\% | 15.1 | 12.1 | 73\% | 91\% |
| 40-44 | 8 | 79,736 | 0.00010 | 0.022\% | 0.017\% | 17.4 | 13.9 | 46\% | 58\% |
| 45-49 | 10 | 34,656 | 0.00029 | 0.027\% | 0.021\% | 9.2 | 7.4 | 109\% | 136\% |
| 50-54 | 1 | 8,730 | 0.00011 | 0.031\% | 0.025\% | 2.7 | 2.2 | 36\% | 46\% |
| 55-59 | 0 | 2,082 | 0.00000 | 0.037\% | 0.029\% | 0.8 | 0.6 | 0\% | 0\% |
| 60-64 | 2 | 501 | 0.00399 | 0.041\% | 0.033\% | 0.2 | 0.2 | 977\% | 1221\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 37 | 350,387 |  |  |  | 60.5 | 48.4 | 61\% | 76\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND ACCIDENTAL MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Plan <br> Year <br> Ending <br> June 30, | TABLE 6B <br> Life Years Exposed | Actual Deaths | Expected Deaths | 10-YEAR PERIOD ENDING 6/30/2013 Mortality Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / <br> Expected | Actual (3) / (2) | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 36,179 | 4 | 6.1 | 66\% | 0.011\% | 0.017\% |
| 2005 | 35,106 | 3 | 6.0 | 50\% | 0.009\% | 0.017\% |
| 2006 | 35,431 | 8 | 6.0 | 134\% | 0.023\% | 0.017\% |
| 2007 | 35,278 | 4 | 5.9 | 68\% | 0.011\% | 0.017\% |
| 2008 | 34,946 | 6 | 5.9 | 102\% | 0.017\% | 0.017\% |
| 2009 | 35,402 | 1 | 6.0 | 17\% | 0.003\% | 0.017\% |
| 2010 | 35,564 | 3 | 6.2 | 48\% | 0.008\% | 0.017\% |
| 2011 | 34,578 | 2 | 6.2 | 32\% | 0.006\% | 0.018\% |
| 2012 | 33,685 | 3 | 6.1 | 49\% | 0.009\% | 0.018\% |
| 2013 | 34,218 | 3 | 6.2 | 49\% | 0.009\% | 0.018\% |
| Total | 350,387 | 37 | 60.5 | 61\% | 0.011\% | 0.017\% |

*The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 20 and over 75.

NEW YORK CITY POLICE DEPARTMENT PENSION FUND ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Age | TABLE 7A |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Disabilities |  | Actual/Expected |  |
|  | Actual | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed <br> (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.05\% | 0.05\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 10 | 0.0000 | 0.06\% | 0.06\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 656 | 0.0000 | 0.06\% | 0.06\% | 0.4 | 0.4 | 0\% | 0\% |
| 23 | 0 | 1,971 | 0.0000 | 0.07\% | 0.07\% | 1.3 | 1.3 | 0\% | 0\% |
| 24 | 2 | 3,086 | 0.0006 | 0.07\% | 0.07\% | 2.2 | 2.2 | 93\% | 93\% |
| 25 | 0 | 3,910 | 0.0000 | 0.08\% | 0.08\% | 2.9 | 2.9 | 0\% | 0\% |
| 26 | 0 | 4,528 | 0.0000 | 0.08\% | 0.08\% | 3.6 | 3.6 | 0\% | 0\% |
| 27 | 1 | 4,913 | 0.0002 | 0.09\% | 0.09\% | 4.2 | 4.2 | 24\% | 24\% |
| 28 | 2 | 5,094 | 0.0004 | 0.09\% | 0.09\% | 4.6 | 4.6 | 44\% | 44\% |
| 29 | 1 | 5,124 | 0.0002 | 0.10\% | 0.10\% | 4.9 | 4.9 | 21\% | 21\% |
| 30 | 4 | 5,183 | 0.0008 | 0.10\% | 0.10\% | 5.2 | 5.2 | 77\% | 77\% |
| 31 | 3 | 5,095 | 0.0006 | 0.11\% | 0.11\% | 5.3 | 5.3 | 56\% | 56\% |
| 32 | 2 | 5,154 | 0.0004 | 0.11\% | 0.11\% | 5.7 | 5.7 | 35\% | 35\% |
| 33 | 3 | 5,174 | 0.0006 | 0.12\% | 0.12\% | 6.0 | 6.0 | 50\% | 50\% |
| 34 | 4 | 5,127 | 0.0008 | 0.12\% | 0.12\% | 6.2 | 6.2 | 65\% | 65\% |
| 35 | 10 | 5,379 | 0.0019 | 0.13\% | 0.13\% | 6.7 | 6.7 | 149\% | 149\% |
| 36 | 14 | 6,020 | 0.0023 | 0.13\% | 0.13\% | 7.8 | 7.8 | 179\% | 179\% |
| 37 | 15 | 6,751 | 0.0022 | 0.14\% | 0.14\% | 9.1 | 9.1 | 165\% | 165\% |
| 38 | 17 | 7,443 | 0.0023 | 0.14\% | 0.14\% | 10.4 | 10.4 | 163\% | 163\% |
| 39 | 29 | 7,725 | 0.0038 | 0.15\% | 0.15\% | 11.2 | 11.2 | 259\% | 259\% |
| 40 | 19 | 7,714 | 0.0025 | 0.15\% | 0.15\% | 11.6 | 11.6 | 164\% | 164\% |
| 41 | 17 | 7,216 | 0.0024 | 0.16\% | 0.16\% | 11.2 | 11.2 | 152\% | 152\% |
| 42 | 14 | 6,661 | 0.0021 | 0.16\% | 0.16\% | 10.7 | 10.7 | 131\% | 131\% |
| 43 | 7 | 6,060 | 0.0012 | 0.17\% | 0.17\% | 10.0 | 10.0 | 70\% | 70\% |
| 44 | 8 | 5,178 | 0.0015 | 0.17\% | 0.17\% | 8.8 | 8.8 | 91\% | 91\% |
| 45 | 6 | 4,377 | 0.0014 | 0.18\% | 0.18\% | 7.7 | 7.7 | 78\% | 78\% |
| 46 | 6 | 3,586 | 0.0017 | 0.18\% | 0.18\% | 6.5 | 6.5 | 93\% | 93\% |
| 47 | 8 | 2,808 | 0.0028 | 0.19\% | 0.19\% | 5.2 | 5.2 | 154\% | 154\% |
| 48 | 6 | 2,177 | 0.0028 | 0.19\% | 0.19\% | 4.1 | 4.1 | 145\% | 145\% |
| 49 | 1 | 1,661 | 0.0006 | 0.20\% | 0.20\% | 3.2 | 3.2 | 31\% | 31\% |
| 50 | 1 | 1,246 | 0.0008 | 0.20\% | 0.20\% | 2.5 | 2.5 | 40\% | 40\% |
| 51 | 0 | 913 | 0.0000 | 0.25\% | 0.25\% | 2.3 | 2.3 | 0\% | 0\% |
| 52 | 0 | 701 | 0.0000 | 0.30\% | 0.30\% | 2.1 | 2.1 | 0\% | 0\% |
| 53 | 0 | 518 | 0.0000 | 0.40\% | 0.40\% | 2.1 | 2.1 | 0\% | 0\% |
| 54 | 0 | 350 | 0.0000 | 0.60\% | 0.60\% | 2.1 | 2.1 | 0\% | 0\% |
| 55 | 0 | 263 | 0.0000 | 0.80\% | 0.80\% | 2.1 | 2.1 | 0\% | 0\% |
| 56 | 0 | 202 | 0.0000 | 1.00\% | 1.00\% | 2.0 | 2.0 | 0\% | 0\% |
| 57 | 0 | 140 | 0.0000 | 2.00\% | 2.00\% | 2.8 | 2.8 | 0\% | 0\% |
| 58 | 2 | 126 | 0.0159 | 3.00\% | 3.00\% | 3.8 | 3.8 | 53\% | 53\% |
| 59 | 1 | 79 | 0.0127 | 4.00\% | 4.00\% | 3.2 | 3.2 | 32\% | 32\% |
| 60 | 1 | 58 | 0.0172 | 6.00\% | 6.00\% | 3.5 | 3.5 | 29\% | 29\% |
| 61 | 0 | 66 | 0.0000 | 8.00\% | 8.00\% | 5.3 | 5.3 | 0\% | 0\% |
| 62 | 0 | 47 | 0.0000 | 10.00\% | 10.00\% | 4.7 | 4.7 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| Total | 204 | 140,490 |  |  |  | 214.9 | 214.9 | 95\% | 95\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN ELIGIBLE FOR WTC BENEFITS

| Age | TABLE 8A |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Disabilities |  | Actual/Expected |  |
|  | Actual | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed <br> (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.30\% | 0.39\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.32\% | 0.39\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.34\% | 0.39\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 0 | N/A | 0.36\% | 0.39\% | 0 | 0 | 0\% | 0\% |
| 24 | 0 | 0 | N/A | 0.38\% | 0.39\% | 0 | 0 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.40\% | 0.39\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 2 | 0.0000 | 0.52\% | 0.39\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 22 | 0.0000 | 0.64\% | 0.39\% | 0.1 | 0.1 | 0\% | 0\% |
| 28 | 3 | 105 | 0.0286 | 0.76\% | 0.39\% | 0.8 | 0.4 | 376\% | 733\% |
| 29 | 2 | 304 | 0.0066 | 0.88\% | 0.39\% | 2.7 | 1.2 | 75\% | 169\% |
| 30 | 3 | 652 | 0.0046 | 1.00\% | 0.48\% | 6.5 | 3.1 | 46\% | 97\% |
| 31 | 6 | 1,066 | 0.0056 | 1.20\% | 0.65\% | 12.8 | 6.9 | 47\% | 87\% |
| 32 | 19 | 1,549 | 0.0123 | 1.40\% | 0.81\% | 21.7 | 12.6 | 88\% | 151\% |
| 33 | 15 | 1,957 | 0.0077 | 1.60\% | 0.97\% | 31.3 | 18.9 | 48\% | 79\% |
| 34 | 26 | 2,356 | 0.0110 | 1.80\% | 1.11\% | 42.4 | 26.2 | 61\% | 99\% |
| 35 | 25 | 2,775 | 0.0090 | 2.00\% | 1.24\% | 55.5 | 34.5 | 45\% | 72\% |
| 36 | 40 | 3,434 | 0.0116 | 2.10\% | 1.37\% | 72.1 | 46.9 | 55\% | 85\% |
| 37 | 44 | 4,180 | 0.0105 | 2.20\% | 1.48\% | 92.0 | 61.7 | 48\% | 71\% |
| 38 | 65 | 4,797 | 0.0136 | 2.30\% | 1.58\% | 110.3 | 75.7 | 59\% | 86\% |
| 39 | 81 | 5,222 | 0.0155 | 2.40\% | 1.67\% | 125.3 | 87.2 | 65\% | 93\% |
| 40 | 92 | 5,374 | 0.0171 | 2.50\% | 1.75\% | 134.4 | 94.0 | 68\% | 98\% |
| 41 | 96 | 5,220 | 0.0184 | 2.60\% | 1.82\% | 135.7 | 95.0 | 71\% | 101\% |
| 42 | 85 | 4,959 | 0.0171 | 2.70\% | 1.88\% | 133.9 | 93.2 | 63\% | 91\% |
| 43 | 66 | 4,573 | 0.0144 | 2.80\% | 1.93\% | 128.0 | 88.2 | 52\% | 75\% |
| 44 | 82 | 3,967 | 0.0207 | 2.90\% | 1.97\% | 115.0 | 78.1 | 71\% | 105\% |
| 45 | 50 | 3,341 | 0.0150 | 3.00\% | 2.00\% | 100.2 | 66.7 | 50\% | 75\% |
| 46 | 40 | 2,750 | 0.0145 | 3.20\% | 2.02\% | 88.0 | 55.4 | 45\% | 72\% |
| 47 | 29 | 2,180 | 0.0133 | 3.40\% | 2.02\% | 74.1 | 44.1 | 39\% | 66\% |
| 48 | 20 | 1,712 | 0.0117 | 3.60\% | 2.02\% | 61.6 | 34.6 | 32\% | 58\% |
| 49 | 13 | 1,317 | 0.0099 | 3.80\% | 2.02\% | 50.0 | 26.6 | 26\% | 49\% |
| 50 | 19 | 982 | 0.0193 | 4.00\% | 2.02\% | 39.3 | 19.9 | 48\% | 96\% |
| 51 | 7 | 722 | 0.0097 | 4.40\% | 2.02\% | 31.8 | 14.6 | 22\% | 48\% |
| 52 | 6 | 553 | 0.0108 | 4.80\% | 2.02\% | 26.5 | 11.2 | 23\% | 54\% |
| 53 | 8 | 402 | 0.0199 | 5.20\% | 2.02\% | 20.9 | 8.1 | 38\% | 98\% |
| 54 | 3 | 270 | 0.0111 | 5.60\% | 2.02\% | 15.1 | 5.5 | 20\% | 55\% |
| 55 | 2 | 203 | 0.0099 | 6.00\% | 2.02\% | 12.2 | 4.1 | 16\% | 49\% |
| 56 | 1 | 151 | 0.0066 | 6.80\% | 2.60\% | 10.3 | 3.9 | 10\% | 25\% |
| 57 | 1 | 110 | 0.0091 | 7.60\% | 3.90\% | 8.4 | 4.3 | 12\% | 23\% |
| 58 | 2 | 98 | 0.0204 | 8.40\% | 5.20\% | 8.2 | 5.1 | 24\% | 39\% |
| 59 | 2 | 60 | 0.0333 | 9.20\% | 6.50\% | 5.5 | 3.9 | 36\% | 51\% |
| 60 | 1 | 48 | 0.0208 | 10.00\% | 7.80\% | 4.8 | 3.7 | 21\% | 27\% |
| 61 | 5 | 52 | 0.0962 | 12.00\% | 7.80\% | 6.2 | 4.1 | 80\% | 123\% |
| 62 | 4 | 36 | 0.1111 | 14.00\% | 7.80\% | 5.0 | 2.8 | 79\% | 142\% |
| 63 | 0 | 0 | N/A | 14.00\% | 7.80\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 14.00\% | 7.80\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 14.00\% | 7.80\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 14.00\% | 7.80\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 14.00\% | 7.80\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 14.00\% | 7.80\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 14.00\% | 7.80\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 14.00\% | 7.80\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 14.00\% | 7.80\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 14.00\% | 7.80\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 14.00\% | 7.80\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 14.00\% | 7.80\% | 0 | 0 | 0\% | 0\% |
| Total | 963 | 67,501 |  |  |  | 1,788.9 | 1,142.6 | 54\% | 84\% |

NEW YORK CITY POLICE DEPARTMENT PENSION FUND ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS

## MEN AND WOMEN



NEW YORK CITY POLICE DEPARTMENT PENSION FUND ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS

MEN AND WOMEN ELIGIBLE FOR WTC BENEFITS

| Age | Actual | TABLE 8A GROUPED |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Disabilities |  | Actual/Expected |  |
|  |  | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected $(7) /(3)$ | Proposed $(\mathbf{8}) /(\mathbf{3})$ | Expected | Proposed | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 25-29 | 5 | 433 | 0.0115 | 0.84\% | 0.39\% | 3.6 | 1.7 | 138\% | 296\% |
| 30-34 | 69 | 7,580 | 0.0091 | 1.51\% | 0.89\% | 114.7 | 67.7 | 60\% | 102\% |
| 35-39 | 255 | 20,408 | 0.0125 | 2.23\% | 1.50\% | 455.2 | 306.0 | 56\% | 83\% |
| 40-44 | 421 | 24,093 | 0.0175 | 2.69\% | 1.86\% | 647.1 | 448.6 | 65\% | 94\% |
| 45-49 | 152 | 11,300 | 0.0135 | 3.31\% | 2.01\% | 374.0 | 227.5 | 41\% | 67\% |
| 50-54 | 43 | 2,929 | 0.0147 | 4.56\% | 2.02\% | 133.6 | 59.2 | 32\% | 73\% |
| 55-59 | 8 | 622 | 0.0129 | 7.16\% | 3.43\% | 44.6 | 21.3 | 18\% | 38\% |
| 60-64 | 10 | 136 | 0.0735 | 11.82\% | 7.80\% | 16.1 | 10.6 | 62\% | 94\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 963 | 67,501 |  |  |  | 1,788.9 | 1,142.6 | 54\% | 84\% |

NEW YORK CITY POLICE DEPARTMENT PENSION FUND ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Age | TABLE 7A |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Disabilities |  | Actual/Expected |  |
|  | Actual | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed <br> (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.05\% | 0.05\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 20 | 0.0000 | 0.06\% | 0.06\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 1,347 | 0.0000 | 0.06\% | 0.06\% | 0.8 | 0.8 | 0\% | 0\% |
| 23 | 0 | 3,711 | 0.0000 | 0.07\% | 0.07\% | 2.4 | 2.4 | 0\% | 0\% |
| 24 | 2 | 5,708 | 0.0004 | 0.07\% | 0.07\% | 4.0 | 4.0 | 50\% | 50\% |
| 25 | 1 | 7,113 | 0.0001 | 0.08\% | 0.08\% | 5.3 | 5.3 | 19\% | 19\% |
| 26 | 3 | 8,195 | 0.0004 | 0.08\% | 0.08\% | 6.6 | 6.6 | 46\% | 46\% |
| 27 | 2 | 8,822 | 0.0002 | 0.09\% | 0.09\% | 7.5 | 7.5 | 27\% | 27\% |
| 28 | 6 | 9,415 | 0.0006 | 0.09\% | 0.09\% | 8.5 | 8.5 | 71\% | 71\% |
| 29 | 3 | 9,713 | 0.0003 | 0.10\% | 0.10\% | 9.2 | 9.2 | 33\% | 33\% |
| 30 | 8 | 9,939 | 0.0008 | 0.10\% | 0.10\% | 9.9 | 9.9 | 80\% | 80\% |
| 31 | 9 | 10,245 | 0.0009 | 0.11\% | 0.11\% | 10.8 | 10.8 | 84\% | 84\% |
| 32 | 13 | 11,115 | 0.0012 | 0.11\% | 0.11\% | 12.2 | 12.2 | 106\% | 106\% |
| 33 | 23 | 12,065 | 0.0019 | 0.12\% | 0.12\% | 13.9 | 13.9 | 166\% | 166\% |
| 34 | 24 | 12,858 | 0.0019 | 0.12\% | 0.12\% | 15.4 | 15.4 | 156\% | 156\% |
| 35 | 51 | 13,609 | 0.0037 | 0.13\% | 0.13\% | 17.0 | 17.0 | 300\% | 300\% |
| 36 | 36 | 14,448 | 0.0025 | 0.13\% | 0.13\% | 18.8 | 18.8 | 192\% | 192\% |
| 37 | 50 | 15,114 | 0.0033 | 0.14\% | 0.14\% | 20.4 | 20.4 | 245\% | 245\% |
| 38 | 49 | 15,948 | 0.0031 | 0.14\% | 0.14\% | 22.3 | 22.3 | 219\% | 219\% |
| 39 | 47 | 16,423 | 0.0029 | 0.15\% | 0.15\% | 23.8 | 23.8 | 197\% | 197\% |
| 40 | 34 | 16,029 | 0.0021 | 0.15\% | 0.15\% | 24.0 | 24.0 | 141\% | 141\% |
| 41 | 33 | 14,525 | 0.0023 | 0.16\% | 0.16\% | 22.5 | 22.5 | 147\% | 147\% |
| 42 | 24 | 12,837 | 0.0019 | 0.16\% | 0.16\% | 20.5 | 20.5 | 117\% | 117\% |
| 43 | 20 | 11,181 | 0.0018 | 0.17\% | 0.17\% | 18.4 | 18.4 | 108\% | 108\% |
| 44 | 16 | 9,359 | 0.0017 | 0.17\% | 0.17\% | 15.9 | 15.9 | 101\% | 101\% |
| 45 | 13 | 7,697 | 0.0017 | 0.18\% | 0.18\% | 13.5 | 13.5 | 97\% | 97\% |
| 46 | 7 | 6,164 | 0.0011 | 0.18\% | 0.18\% | 11.1 | 11.1 | 63\% | 63\% |
| 47 | 10 | 4,795 | 0.0021 | 0.19\% | 0.19\% | 8.9 | 8.9 | 113\% | 113\% |
| 48 | 7 | 3,719 | 0.0019 | 0.19\% | 0.19\% | 7.1 | 7.1 | 99\% | 99\% |
| 49 | 1 | 2,815 | 0.0004 | 0.20\% | 0.20\% | 5.5 | 5.5 | 18\% | 18\% |
| 50 | 1 | 1,992 | 0.0005 | 0.20\% | 0.20\% | 4.0 | 4.0 | 25\% | 25\% |
| 51 | 1 | 1,438 | 0.0007 | 0.25\% | 0.25\% | 3.6 | 3.6 | 28\% | 28\% |
| 52 | 0 | 1,040 | 0.0000 | 0.30\% | 0.30\% | 3.1 | 3.1 | 0\% | 0\% |
| 53 | 0 | 744 | 0.0000 | 0.40\% | 0.40\% | 3.0 | 3.0 | 0\% | 0\% |
| 54 | 0 | 551 | 0.0000 | 0.60\% | 0.60\% | 3.3 | 3.3 | 0\% | 0\% |
| 55 | 2 | 420 | 0.0048 | 0.80\% | 0.80\% | 3.4 | 3.4 | 60\% | 60\% |
| 56 | 0 | 332 | 0.0000 | 1.00\% | 1.00\% | 3.3 | 3.3 | 0\% | 0\% |
| 57 | 0 | 261 | 0.0000 | 2.00\% | 2.00\% | 5.2 | 5.2 | 0\% | 0\% |
| 58 | 3 | 223 | 0.0135 | 3.00\% | 3.00\% | 6.7 | 6.7 | 45\% | 45\% |
| 59 | 2 | 166 | 0.0120 | 4.00\% | 4.00\% | 6.6 | 6.6 | 30\% | 30\% |
| 60 | 1 | 148 | 0.0068 | 6.00\% | 6.00\% | 8.9 | 8.9 | 11\% | 11\% |
| 61 | 0 | 132 | 0.0000 | 8.00\% | 8.00\% | 10.6 | 10.6 | 0\% | 0\% |
| 62 | 3 | 108 | 0.0278 | 10.00\% | 10.00\% | 10.8 | 10.8 | 28\% | 28\% |
| 63 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 10.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| Total | 505 | 282,484 |  |  |  | 428.8 | 428.8 | 118\% | 118\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN ELIGIBLE FOR WTC BENEFITS

| Age | Actual | TABLE 8A |  |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Disabilities |  | Actual/Expected |  |
|  |  | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.30\% | 0.39\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.32\% | 0.39\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.34\% | 0.39\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 22 | 0.0000 | 0.36\% | 0.39\% | 0.1 | 0.1 | 0\% | 0\% |
| 24 | 0 | 105 | 0.0000 | 0.38\% | 0.39\% | 0.4 | 0.4 | 0\% | 0\% |
| 25 | 0 | 316 | 0.0000 | 0.40\% | 0.39\% | 1.3 | 1.2 | 0\% | 0\% |
| 26 | 0 | 681 | 0.0000 | 0.52\% | 0.39\% | 3.5 | 2.7 | 0\% | 0\% |
| 27 | 1 | 1,145 | 0.0009 | 0.64\% | 0.39\% | 7.3 | 4.5 | 14\% | 22\% |
| 28 | 6 | 1,733 | 0.0035 | 0.76\% | 0.39\% | 13.2 | 6.8 | 46\% | 89\% |
| 29 | 3 | 2,355 | 0.0013 | 0.88\% | 0.39\% | 20.7 | 9.2 | 14\% | 33\% |
| 30 | 7 | 3,120 | 0.0022 | 1.00\% | 0.48\% | 31.2 | 14.8 | 22\% | 47\% |
| 31 | 14 | 3,995 | 0.0035 | 1.20\% | 0.65\% | 47.9 | 26.0 | 29\% | 54\% |
| 32 | 32 | 5,184 | 0.0062 | 1.40\% | 0.81\% | 72.6 | 42.2 | 44\% | 76\% |
| 33 | 35 | 6,398 | 0.0055 | 1.60\% | 0.97\% | 102.4 | 61.9 | 34\% | 57\% |
| 34 | 62 | 7,465 | 0.0083 | 1.80\% | 1.11\% | 134.4 | 82.9 | 46\% | 75\% |
| 35 | 80 | 8,362 | 0.0096 | 2.00\% | 1.24\% | 167.2 | 103.9 | 48\% | 77\% |
| 36 | 89 | 9,281 | 0.0096 | 2.10\% | 1.37\% | 194.9 | 126.7 | 46\% | 70\% |
| 37 | 90 | 10,170 | 0.0088 | 2.20\% | 1.48\% | 223.7 | 150.2 | 40\% | 60\% |
| 38 | 136 | 10,988 | 0.0124 | 2.30\% | 1.58\% | 252.7 | 173.4 | 54\% | 78\% |
| 39 | 145 | 11,582 | 0.0125 | 2.40\% | 1.67\% | 278.0 | 193.3 | 52\% | 75\% |
| 40 | 167 | 11,452 | 0.0146 | 2.50\% | 1.75\% | 286.3 | 200.4 | 58\% | 83\% |
| 41 | 183 | 10,499 | 0.0174 | 2.60\% | 1.82\% | 273.0 | 191.1 | 67\% | 96\% |
| 42 | 151 | 9,391 | 0.0161 | 2.70\% | 1.88\% | 253.6 | 176.5 | 60\% | 86\% |
| 43 | 102 | 8,235 | 0.0124 | 2.80\% | 1.93\% | 230.6 | 158.9 | 44\% | 64\% |
| 44 | 128 | 6,953 | 0.0184 | 2.90\% | 1.97\% | 201.6 | 136.8 | 63\% | 94\% |
| 45 | 89 | 5,746 | 0.0155 | 3.00\% | 2.00\% | 172.4 | 114.7 | 52\% | 78\% |
| 46 | 66 | 4,619 | 0.0143 | 3.20\% | 2.02\% | 147.8 | 93.1 | 45\% | 71\% |
| 47 | 52 | 3,623 | 0.0144 | 3.40\% | 2.02\% | 123.2 | 73.3 | 42\% | 71\% |
| 48 | 39 | 2,814 | 0.0139 | 3.60\% | 2.02\% | 101.3 | 56.9 | 38\% | 69\% |
| 49 | 28 | 2,133 | 0.0131 | 3.80\% | 2.02\% | 81.1 | 43.1 | 35\% | 65\% |
| 50 | 31 | 1,513 | 0.0205 | 4.00\% | 2.02\% | 60.5 | 30.6 | 51\% | 101\% |
| 51 | 12 | 1,084 | 0.0111 | 4.40\% | 2.02\% | 47.7 | 21.9 | 25\% | 55\% |
| 52 | 10 | 794 | 0.0126 | 4.80\% | 2.02\% | 38.1 | 16.1 | 26\% | 62\% |
| 53 | 12 | 560 | 0.0214 | 5.20\% | 2.02\% | 29.1 | 11.3 | 41\% | 106\% |
| 54 | 5 | 406 | 0.0123 | 5.60\% | 2.02\% | 22.7 | 8.2 | 22\% | 61\% |
| 55 | 4 | 309 | 0.0129 | 6.00\% | 2.02\% | 18.5 | 6.3 | 22\% | 64\% |
| 56 | 2 | 241 | 0.0083 | 6.80\% | 2.60\% | 16.4 | 6.3 | 12\% | 32\% |
| 57 | 3 | 190 | 0.0158 | 7.60\% | 3.90\% | 14.4 | 7.4 | 21\% | 40\% |
| 58 | 6 | 166 | 0.0361 | 8.40\% | 5.20\% | 13.9 | 8.6 | 43\% | 70\% |
| 59 | 4 | 118 | 0.0339 | 9.20\% | 6.50\% | 10.9 | 7.7 | 37\% | 52\% |
| 60 | 2 | 93 | 0.0215 | 10.00\% | 7.80\% | 9.3 | 7.3 | 22\% | 28\% |
| 61 | 8 | 79 | 0.1013 | 12.00\% | 7.80\% | 9.5 | 6.2 | 84\% | 130\% |
| 62 | 6 | 60 | 0.1000 | 14.00\% | 7.80\% | 8.4 | 4.7 | 71\% | 128\% |
| 63 | 0 | 0 | N/A | 14.00\% | 7.80\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 14.00\% | 7.80\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 14.00\% | 7.80\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 14.00\% | 7.80\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 14.00\% | 7.80\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 14.00\% | 7.80\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 14.00\% | 7.80\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 14.00\% | 7.80\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 14.00\% | 7.80\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 14.00\% | 7.80\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 14.00\% | 7.80\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 14.00\% | 7.80\% | 0 | 0 | 0\% | 0\% |
| Total | 1,810 | 153,980 |  |  |  | 3,721.8 | 2,387.4 | 49\% | 76\% |

NEW YORK CITY POLICE DEPARTMENT PENSION FUND ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS

## MEN AND WOMEN

| Age | TABLE 7A GROUPED |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Disabilities |  | Actual/Expected |  |
|  | Actual | Total Exposed | Actual Rate (2) /(3) | Expected <br> (7) / (3) | Proposed (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 2 | 10,786 | 0.0002 | 0.07\% | 0.07\% | 7.2 | 7.2 | 28\% | 28\% |
| 25-29 | 15 | 43,258 | 0.0003 | 0.09\% | 0.09\% | 37.1 | 37.1 | 40\% | 40\% |
| 30-34 | 77 | 56,222 | 0.0014 | 0.11\% | 0.11\% | 62.2 | 62.2 | 124\% | 124\% |
| 35-39 | 233 | 75,542 | 0.0031 | 0.14\% | 0.14\% | 102.3 | 102.3 | 228\% | 228\% |
| 40-44 | 127 | 63,931 | 0.0020 | 0.16\% | 0.16\% | 101.5 | 101.5 | 125\% | 125\% |
| 45-49 | 38 | 25,190 | 0.0015 | 0.18\% | 0.18\% | 46.0 | 46.0 | 83\% | 83\% |
| 50-54 | 2 | 5,765 | 0.0003 | 0.29\% | 0.29\% | 17.0 | 17.0 | 12\% | 12\% |
| 55-59 | 7 | 1,402 | 0.0050 | 1.80\% | 1.80\% | 25.2 | 25.2 | 28\% | 28\% |
| 60-64 | 4 | 388 | 0.0103 | 7.79\% | 7.79\% | 30.2 | 30.2 | 13\% | 13\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 505 | 282,484 |  |  |  | 428.8 | 428.8 | 118\% | 118\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS <br> MEN AND WOMEN ELIGIBLE FOR WTC BENEFITS



NEW YORK CITY POLICE DEPARTMENT PENSION FUND ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Plan <br> Year <br> Ending <br> June 30, | TABLE 7B <br> Life Years Exposed | Actual Disabilities | Expected Disabilities | 10-YEAR PERIOD ENDING 6/30/2013 <br> Disability Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / <br> Expected | $\begin{aligned} & \hline \text { Actual } \\ & (3) /(2) \\ & \hline \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 36,179 | 94 | 55.1 | 170\% | 0.26\% | 0.15\% |
| 2005 | 35,106 | 93 | 53.4 | 174\% | 0.26\% | 0.15\% |
| 2006 | 35,431 | 70 | 53.5 | 131\% | 0.20\% | 0.15\% |
| 2007 | 35,278 | 45 | 51.9 | 87\% | 0.13\% | 0.15\% |
| 2008 | 34,946 | 39 | 52.2 | 75\% | 0.11\% | 0.15\% |
| 2009 | 35,402 | 53 | 53.2 | 100\% | 0.15\% | 0.15\% |
| 2010 | 35,564 | 60 | 54.2 | 111\% | 0.17\% | 0.15\% |
| 2011 | 34,578 | 52 | 55.2 | 94\% | 0.15\% | 0.16\% |
| 2012 | 33,685 | 39 | 56.2 | 69\% | 0.12\% | 0.17\% |
| 2013 | 34,218 | 43 | 57.8 | 74\% | 0.13\% | 0.17\% |
| Total | 350,387 | 588 | 542.8 | 108\% | 0.17\% | 0.15\% |

*The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 20 and over 75.

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS <br> MEN AND WOMEN NOT ELIGIBLE FOR WTC BENEFITS

| Age | TABLE 8B |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Disabilities |  | Actual/Expected |  |
|  | Actual | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed <br> (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.15\% | 0.02\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 10 | 0.0000 | 0.16\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 656 | 0.0000 | 0.17\% | 0.14\% | 1.1 | 0.9 | 0\% | 0\% |
| 23 | 0 | 1,971 | 0.0000 | 0.18\% | 0.14\% | 3.5 | 2.7 | 0\% | 0\% |
| 24 | 0 | 3,086 | 0.0000 | 0.19\% | 0.14\% | 5.9 | 4.2 | 0\% | 0\% |
| 25 | 1 | 3,910 | 0.0003 | 0.20\% | 0.14\% | 7.8 | 5.3 | 13\% | 19\% |
| 26 | 1 | 4,526 | 0.0002 | 0.26\% | 0.14\% | 11.8 | 6.1 | 8\% | 16\% |
| 27 | 9 | 4,891 | 0.0018 | 0.32\% | 0.14\% | 15.7 | 6.6 | 58\% | 136\% |
| 28 | 9 | 4,989 | 0.0018 | 0.38\% | 0.14\% | 19.0 | 6.7 | 47\% | 134\% |
| 29 | 7 | 4,820 | 0.0015 | 0.44\% | 0.14\% | 21.2 | 6.6 | 33\% | 105\% |
| 30 | 9 | 4,531 | 0.0020 | 0.50\% | 0.23\% | 22.7 | 10.5 | 40\% | 86\% |
| 31 | 11 | 4,029 | 0.0027 | 0.60\% | 0.34\% | 24.2 | 13.7 | 46\% | 81\% |
| 32 | 6 | 3,605 | 0.0017 | 0.70\% | 0.46\% | 25.2 | 16.5 | 24\% | 36\% |
| 33 | 7 | 3,217 | 0.0022 | 0.80\% | 0.59\% | 25.7 | 18.8 | 27\% | 37\% |
| 34 | 14 | 2,771 | 0.0051 | 0.90\% | 0.72\% | 24.9 | 19.9 | 56\% | 70\% |
| 35 | 19 | 2,604 | 0.0073 | 1.00\% | 0.86\% | 26.0 | 22.3 | 73\% | 85\% |
| 36 | 15 | 2,586 | 0.0058 | 1.05\% | 0.99\% | 27.2 | 25.7 | 55\% | 58\% |
| 37 | 17 | 2,571 | 0.0066 | 1.10\% | 1.13\% | 28.3 | 29.0 | 60\% | 59\% |
| 38 | 21 | 2,646 | 0.0079 | 1.15\% | 1.26\% | 30.4 | 33.3 | 69\% | 63\% |
| 39 | 34 | 2,503 | 0.0136 | 1.20\% | 1.38\% | 30.0 | 34.6 | 113\% | 98\% |
| 40 | 28 | 2,340 | 0.0120 | 1.25\% | 1.49\% | 29.3 | 35.0 | 96\% | 80\% |
| 41 | 24 | 1,996 | 0.0120 | 1.30\% | 1.59\% | 25.9 | 31.8 | 92\% | 75\% |
| 42 | 27 | 1,702 | 0.0159 | 1.35\% | 1.68\% | 23.0 | 28.6 | 118\% | 95\% |
| 43 | 15 | 1,487 | 0.0101 | 1.40\% | 1.74\% | 20.8 | 25.9 | 72\% | 58\% |
| 44 | 22 | 1,211 | 0.0182 | 1.45\% | 1.79\% | 17.6 | 21.6 | 125\% | 102\% |
| 45 | 18 | 1,036 | 0.0174 | 1.50\% | 1.81\% | 15.5 | 18.7 | 116\% | 96\% |
| 46 | 17 | 836 | 0.0203 | 1.60\% | 1.81\% | 13.4 | 15.1 | 127\% | 112\% |
| 47 | 9 | 628 | 0.0143 | 1.70\% | 1.81\% | 10.7 | 11.4 | 84\% | 79\% |
| 48 | 5 | 465 | 0.0108 | 1.80\% | 2.70\% | 8.4 | 12.6 | 60\% | 40\% |
| 49 | 6 | 344 | 0.0174 | 1.90\% | 3.60\% | 6.5 | 12.4 | 92\% | 48\% |
| 50 | 3 | 264 | 0.0114 | 2.00\% | 4.50\% | 5.3 | 11.9 | 57\% | 25\% |
| 51 | 4 | 191 | 0.0209 | 2.20\% | 5.40\% | 4.2 | 10.3 | 95\% | 39\% |
| 52 | 1 | 148 | 0.0068 | 2.40\% | 6.30\% | 3.6 | 9.3 | 28\% | 11\% |
| 53 | 1 | 116 | 0.0086 | 2.60\% | 7.20\% | 3.0 | 8.4 | 33\% | 12\% |
| 54 | 0 | 80 | 0.0000 | 2.80\% | 8.10\% | 2.2 | 6.5 | 0\% | 0\% |
| 55 | 1 | 60 | 0.0167 | 3.00\% | 9.00\% | 1.8 | 5.4 | 56\% | 19\% |
| 56 | 1 | 51 | 0.0196 | 3.40\% | 9.00\% | 1.7 | 4.6 | 58\% | 22\% |
| 57 | 0 | 30 | 0.0000 | 3.80\% | 9.00\% | 1.1 | 2.7 | 0\% | 0\% |
| 58 | 0 | 28 | 0.0000 | 4.20\% | 9.00\% | 1.2 | 2.5 | 0\% | 0\% |
| 59 | 1 | 19 | 0.0526 | 4.60\% | 9.00\% | 0.9 | 1.7 | 114\% | 58\% |
| 60 | 0 | 10 | 0.0000 | 5.00\% | 9.00\% | 0.5 | 0.9 | 0\% | 0\% |
| 61 | 0 | 14 | 0.0000 | 6.00\% | 9.00\% | 0.8 | 1.3 | 0\% | 0\% |
| 62 | 2 | 11 | 0.1818 | 7.00\% | 9.00\% | 0.8 | 1.0 | 260\% | 202\% |
| 63 | 0 | 0 | N/A | 7.00\% | 9.00\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 7.00\% | 9.00\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 7.00\% | 9.00\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 7.00\% | 9.00\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 7.00\% | 9.00\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 7.00\% | 9.00\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 7.00\% | 9.00\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 7.00\% | 9.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 7.00\% | 9.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 7.00\% | 9.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 7.00\% | 9.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 7.00\% | 9.00\% | 0 | 0 | 0\% | 0\% |
| Total | 365 | 72,989 |  |  |  | 548.8 | 542.9 | 67\% | 67\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS

MEN AND WOMEN NOT ELIGIBLE FOR WTC BENEFITS

| Age | Actual | TABLE 8B GROUPED |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Disabilities |  | Actual/Expected |  |
|  |  | Total Exposed | Actual Rate <br> (2) / (3) | Expected $(7) /(3)$ | Proposed (8) / (3) | Expected | Proposed | Expected $(2) /(7)$ | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 5,723 | 0.0000 | 0.18\% | 0.13\% | 10.5 | 7.7 | 0\% | 0\% |
| 25-29 | 27 | 23,136 | 0.0012 | 0.33\% | 0.14\% | 75.4 | 31.4 | 36\% | 86\% |
| 30-34 | 47 | 18,153 | 0.0026 | 0.68\% | 0.44\% | 122.7 | 79.4 | 38\% | 59\% |
| 35-39 | 106 | 12,910 | 0.0082 | 1.10\% | 1.12\% | 141.9 | 144.9 | 75\% | 73\% |
| 40-44 | 116 | 8,736 | 0.0133 | 1.33\% | 1.64\% | 116.6 | 142.9 | 100\% | 81\% |
| 45-49 | 55 | 3,309 | 0.0166 | 1.65\% | 2.12\% | 54.5 | 70.1 | 101\% | 78\% |
| 50-54 | 9 | 799 | 0.0113 | 2.29\% | 5.80\% | 18.3 | 46.4 | 49\% | 19\% |
| 55-59 | 3 | 188 | 0.0160 | 3.58\% | 9.00\% | 6.7 | 16.9 | 45\% | 18\% |
| 60-64 | 2 | 35 | 0.0571 | 6.03\% | 9.00\% | 2.1 | 3.2 | 95\% | 63\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 365 | 72,989 |  |  |  | 548.8 | 542.9 | 67\% | 67\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS <br> MEN AND WOMEN NOT ELIGIBLE FOR WTC BENEFITS

| Age | Actual | TABLE 8B |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Disabilities |  | Actual/Expected |  |
|  |  | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.15\% | 0.02\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 20 | 0.0000 | 0.16\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 1,347 | 0.0000 | 0.17\% | 0.14\% | 2.3 | 1.8 | 0\% | 0\% |
| 23 | 0 | 3,689 | 0.0000 | 0.18\% | 0.14\% | 6.6 | 5.0 | 0\% | 0\% |
| 24 | 0 | 5,603 | 0.0000 | 0.19\% | 0.14\% | 10.6 | 7.6 | 0\% | 0\% |
| 25 | 2 | 6,797 | 0.0003 | 0.20\% | 0.14\% | 13.6 | 9.2 | 15\% | 22\% |
| 26 | 3 | 7,514 | 0.0004 | 0.26\% | 0.14\% | 19.5 | 10.1 | 15\% | 30\% |
| 27 | 10 | 7,677 | 0.0013 | 0.32\% | 0.14\% | 24.6 | 10.4 | 41\% | 96\% |
| 28 | 12 | 7,682 | 0.0016 | 0.38\% | 0.14\% | 29.2 | 10.4 | 41\% | 116\% |
| 29 | 13 | 7,358 | 0.0018 | 0.44\% | 0.14\% | 32.4 | 10.1 | 40\% | 128\% |
| 30 | 14 | 6,819 | 0.0021 | 0.50\% | 0.23\% | 34.1 | 15.8 | 41\% | 89\% |
| 31 | 17 | 6,250 | 0.0027 | 0.60\% | 0.34\% | 37.5 | 21.2 | 45\% | 80\% |
| 32 | 29 | 5,931 | 0.0049 | 0.70\% | 0.46\% | 41.5 | 27.2 | 70\% | 107\% |
| 33 | 33 | 5,667 | 0.0058 | 0.80\% | 0.59\% | 45.3 | 33.2 | 73\% | 99\% |
| 34 | 47 | 5,393 | 0.0087 | 0.90\% | 0.72\% | 48.5 | 38.8 | 97\% | 121\% |
| 35 | 61 | 5,247 | 0.0116 | 1.00\% | 0.86\% | 52.5 | 44.9 | 116\% | 136\% |
| 36 | 62 | 5,167 | 0.0120 | 1.05\% | 0.99\% | 54.3 | 51.3 | 114\% | 121\% |
| 37 | 52 | 4,944 | 0.0105 | 1.10\% | 1.13\% | 54.4 | 55.8 | 96\% | 93\% |
| 38 | 83 | 4,960 | 0.0167 | 1.15\% | 1.26\% | 57.0 | 62.4 | 146\% | 133\% |
| 39 | 87 | 4,841 | 0.0180 | 1.20\% | 1.38\% | 58.1 | 66.9 | 150\% | 130\% |
| 40 | 80 | 4,577 | 0.0175 | 1.25\% | 1.49\% | 57.2 | 68.4 | 140\% | 117\% |
| 41 | 84 | 4,026 | 0.0209 | 1.30\% | 1.59\% | 52.3 | 64.2 | 160\% | 131\% |
| 42 | 73 | 3,446 | 0.0212 | 1.35\% | 1.68\% | 46.5 | 57.8 | 157\% | 126\% |
| 43 | 66 | 2,946 | 0.0224 | 1.40\% | 1.74\% | 41.2 | 51.4 | 160\% | 129\% |
| 44 | 59 | 2,406 | 0.0245 | 1.45\% | 1.79\% | 34.9 | 43.0 | 169\% | 137\% |
| 45 | 41 | 1,951 | 0.0210 | 1.50\% | 1.81\% | 29.3 | 35.3 | 140\% | 116\% |
| 46 | 43 | 1,545 | 0.0278 | 1.60\% | 1.81\% | 24.7 | 27.9 | 174\% | 154\% |
| 47 | 26 | 1,172 | 0.0222 | 1.70\% | 1.81\% | 19.9 | 21.2 | 130\% | 123\% |
| 48 | 11 | 905 | 0.0122 | 1.80\% | 2.70\% | 16.3 | 24.4 | 68\% | 45\% |
| 49 | 11 | 682 | 0.0161 | 1.90\% | 3.60\% | 13.0 | 24.6 | 85\% | 45\% |
| 50 | 9 | 479 | 0.0188 | 2.00\% | 4.50\% | 9.6 | 21.6 | 94\% | 42\% |
| 51 | 10 | 354 | 0.0282 | 2.20\% | 5.40\% | 7.8 | 19.1 | 128\% | 52\% |
| 52 | 5 | 246 | 0.0203 | 2.40\% | 6.30\% | 5.9 | 15.5 | 85\% | 32\% |
| 53 | 3 | 184 | 0.0163 | 2.60\% | 7.20\% | 4.8 | 13.2 | 63\% | 23\% |
| 54 | 2 | 145 | 0.0138 | 2.80\% | 8.10\% | 4.1 | 11.7 | 49\% | 17\% |
| 55 | 3 | 111 | 0.0270 | 3.00\% | 9.00\% | 3.3 | 10.0 | 90\% | 30\% |
| 56 | 3 | 91 | 0.0330 | 3.40\% | 9.00\% | 3.1 | 8.2 | 97\% | 37\% |
| 57 | 2 | 71 | 0.0282 | 3.80\% | 9.00\% | 2.7 | 6.4 | 74\% | 31\% |
| 58 | 1 | 57 | 0.0175 | 4.20\% | 9.00\% | 2.4 | 5.1 | 42\% | 19\% |
| 59 | 4 | 48 | 0.0833 | 4.60\% | 9.00\% | 2.2 | 4.3 | 181\% | 93\% |
| 60 | 1 | 55 | 0.0182 | 5.00\% | 9.00\% | 2.8 | 5.0 | 36\% | 20\% |
| 61 | 2 | 53 | 0.0377 | 6.00\% | 9.00\% | 3.2 | 4.8 | 63\% | 42\% |
| 62 | 4 | 48 | 0.0833 | 7.00\% | 9.00\% | 3.4 | 4.3 | 119\% | 93\% |
| 63 | 0 | 0 | N/A | 7.00\% | 9.00\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 7.00\% | 9.00\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 7.00\% | 9.00\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 7.00\% | 9.00\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 7.00\% | 9.00\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 7.00\% | 9.00\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 7.00\% | 9.00\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 7.00\% | 9.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 7.00\% | 9.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 7.00\% | 9.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 7.00\% | 9.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 7.00\% | 9.00\% | 0 | 0 | 0\% | 0\% |
| Total | 1,068 | 128,504 |  |  |  | 1,012.6 | 1,029.4 | 105\% | 104\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS

MEN AND WOMEN NOT ELIGIBLE FOR WTC BENEFITS


## NEW YORK CITY POLICE DEPARTMENT PENSION FUND ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Plan <br> Year <br> Ending <br> June 30, | TABLE 8C <br> Life Years Exposed | Actual Disabilities | Expected Disabilities | 10-YEAR PERIOD ENDING 6/30/2013 Disability Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / <br> Expected | Actual $(3) /(2)$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 36,179 | 425 | 619.7 | 69\% | 1.17\% | 1.71\% |
| 2005 | 35,106 | 377 | 608.9 | 62\% | 1.07\% | 1.73\% |
| 2006 | 35,431 | 398 | 596.7 | 67\% | 1.12\% | 1.68\% |
| 2007 | 35,278 | 353 | 582.0 | 61\% | 1.00\% | 1.65\% |
| 2008 | 34,946 | 340 | 570.7 | 60\% | 0.97\% | 1.63\% |
| 2009 | 35,402 | 365 | 579.8 | 63\% | 1.03\% | 1.64\% |
| 2010 | 35,564 | 289 | 592.5 | 49\% | 0.81\% | 1.67\% |
| 2011 | 34,578 | 335 | 595.6 | 56\% | 0.97\% | 1.72\% |
| 2012 | 33,685 | 298 | 580.4 | 51\% | 0.88\% | 1.72\% |
| 2013 | 34,218 | 297 | 572.6 | 52\% | 0.87\% | 1.67\% |
| Total | 350,387 | 3,477 | 5898.9 | 59\% | 0.99\% | 1.68\% |

*The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 20 and over 75.

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND <br> TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

TABLE 9A

| Service | Life Years Exposed | Total Salary BOY |  | Actual Salary EOY |  | Expected Salary EOY |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 1,239 | \$ | 61,713,672 | \$ | 67,543,835 | \$ | 63,565,082 | 315\% | 9.45\% | 3.00\% |
| 1 | 5,144 |  | 259,980,103 |  | 287,682,027 |  | 278,178,710 | 152\% | 10.66\% | 7.00\% |
| 2 | 5,205 |  | 274,445,387 |  | 319,328,156 |  | 310,123,287 | 126\% | 16.35\% | 13.00\% |
| 3 | 6,515 |  | 376,946,561 |  | 434,650,459 |  | 433,488,545 | 102\% | 15.31\% | 15.00\% |
| 4 | 8,511 |  | 552,782,513 |  | 653,075,000 |  | 668,866,841 | 86\% | 18.14\% | 21.00\% |
| 5 | 8,840 |  | 662,457,525 |  | 829,591,756 |  | 900,942,234 | 70\% | 25.23\% | 36.00\% |
| 6 | 8,171 |  | 762,338,110 |  | 823,404,546 |  | 795,880,987 | 182\% | 8.01\% | 4.40\% |
| 7 | 7,489 |  | 727,610,955 |  | 765,952,517 |  | 761,081,059 | 115\% | 5.27\% | 4.60\% |
| 8 | 6,119 |  | 602,598,666 |  | 632,091,769 |  | 631,523,402 | 102\% | 4.89\% | 4.80\% |
| 9 | 5,458 |  | 536,540,819 |  | 573,410,389 |  | 569,806,350 | 600\% | 6.87\% | 6.20\% |
| 10 | 5,123 |  | 517,113,740 |  | 551,358,204 |  | 542,969,427 | 132\% | 6.62\% | 5.00\% |
| 11 | 5,087 |  | 520,214,188 |  | 553,177,393 |  | 545,704,683 | 129\% | 6.34\% | 4.90\% |
| 12 | 4,795 |  | 502,559,766 |  | 532,814,146 |  | 526,682,635 | 125\% | 6.02\% | 4.80\% |
| 13 | 4,523 |  | 484,130,244 |  | 512,181,750 |  | 506,884,365 | 123\% | 5.79\% | 4.70\% |
| 14 | 4,710 |  | 505,206,677 |  | 539,975,892 |  | 535,013,871 | 117\% | 6.88\% | 5.90\% |
| 15 | 4,798 |  | 519,248,823 |  | 558,364,089 |  | 542,615,020 | 167\% | 7.53\% | 4.50\% |
| 16 | 5,842 |  | 633,044,373 |  | 680,823,859 |  | 660,898,325 | 172\% | 7.55\% | 4.40\% |
| 17 | 6,359 |  | 703,991,647 |  | 748,558,854 |  | 734,263,288 | 147\% | 6.33\% | 4.30\% |
| 18 | 6,733 |  | 756,317,121 |  | 801,463,802 |  | 788,082,440 | 142\% | 5.97\% | 4.20\% |
| 19 | 5,421 |  | 621,799,740 |  | 660,727,900 |  | 655,376,926 | 116\% | 6.26\% | 5.40\% |
| 20 | 3,194 |  | 387,246,988 |  | 406,438,315 |  | 402,736,868 | 124\% | 4.96\% | 4.00\% |
| 21 | 2,153 |  | 270,230,617 |  | 279,976,013 |  | 280,769,611 | 92\% | 3.61\% | 3.90\% |
| 22 | 1,754 |  | 217,079,054 |  | 227,927,268 |  | 225,328,058 | 132\% | 5.00\% | 3.80\% |
| 23 | 1,504 |  | 184,413,067 |  | 196,174,753 |  | 191,236,350 | 172\% | 6.38\% | 3.70\% |
| 24 | 1,422 |  | 178,633,467 |  | 187,903,254 |  | 185,064,272 | 144\% | 5.19\% | 3.60\% |
| 25 | 1,251 |  | 161,815,401 |  | 168,103,866 |  | 167,478,940 | 111\% | 3.89\% | 3.50\% |
| 26 | 984 |  | 129,650,219 |  | 133,850,369 |  | 134,187,977 | 93\% | 3.24\% | 3.50\% |
| 27 | 730 |  | 97,410,497 |  | 100,139,559 |  | 100,819,864 | 80\% | 2.80\% | 3.50\% |
| 28 | 651 |  | 88,182,484 |  | 91,367,854 |  | 91,268,871 | 103\% | 3.61\% | 3.50\% |
| 29 | 487 |  | 69,139,284 |  | 70,833,584 |  | 71,559,159 | 70\% | 2.45\% | 3.50\% |
| 30+ | 846 |  | 130,013,036 |  | 132,008,700 |  | 134,563,492 | 44\% | 1.53\% | 3.50\% |
| Total | 131,058 |  | 12,494,854,744 |  | 13,520,899,878 |  | 13,436,960,940 | 109\% | 8.21\% | 7.54\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND <br> TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

TABLE 9A 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Total Salary BOY |  | Actual Salary EOY |  | $\underline{\text { Proposed Salary EOY }}$ |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 1,239 | \$ | 61,713,672 | \$ | 67,543,835 | \$ | 64,799,356 | 189\% | 9.45\% | 5.00\% |
| 1 | 5,144 |  | 259,980,103 |  | 287,682,027 |  | 278,178,710 | 152\% | 10.66\% | 7.00\% |
| 2 | 5,205 |  | 274,445,387 |  | 319,328,156 |  | 301,889,926 | 164\% | 16.35\% | 10.00\% |
| 3 | 6,515 |  | 376,946,561 |  | 434,650,459 |  | 418,410,683 | 139\% | 15.31\% | 11.00\% |
| 4 | 8,511 |  | 552,782,513 |  | 653,075,000 |  | 628,790,109 | 132\% | 18.14\% | 13.75\% |
| 5 | 8,840 |  | 662,457,525 |  | 829,591,756 |  | 803,229,749 | 119\% | 25.23\% | 21.25\% |
| 6 | 8,171 |  | 762,338,110 |  | 823,404,546 |  | 798,549,170 | 169\% | 8.01\% | 4.75\% |
| 7 | 7,489 |  | 727,610,955 |  | 765,952,517 |  | 763,991,503 | 105\% | 5.27\% | 5.00\% |
| 8 | 6,119 |  | 602,598,666 |  | 632,091,769 |  | 632,728,599 | 98\% | 4.89\% | 5.00\% |
| 9 | 5,458 |  | 536,540,819 |  | 573,410,389 |  | 567,391,916 | 120\% | 6.87\% | 5.75\% |
| 10 | 5,123 |  | 517,113,740 |  | 551,358,204 |  | 542,969,427 | 132\% | 6.62\% | 5.00\% |
| 11 | 5,087 |  | 520,214,188 |  | 553,177,393 |  | 546,224,897 | 127\% | 6.34\% | 5.00\% |
| 12 | 4,795 |  | 502,559,766 |  | 532,814,146 |  | 527,687,754 | 120\% | 6.02\% | 5.00\% |
| 13 | 4,523 |  | 484,130,244 |  | 512,181,750 |  | 507,126,431 | 122\% | 5.79\% | 4.75\% |
| 14 | 4,710 |  | 505,206,677 |  | 539,975,892 |  | 532,993,044 | 125\% | 6.88\% | 5.50\% |
| 15 | 4,798 |  | 519,248,823 |  | 558,364,089 |  | 543,913,142 | 159\% | 7.53\% | 4.75\% |
| 16 | 5,842 |  | 633,044,373 |  | 680,823,859 |  | 663,113,981 | 159\% | 7.55\% | 4.75\% |
| 17 | 6,359 |  | 703,991,647 |  | 748,558,854 |  | 735,671,271 | 141\% | 6.33\% | 4.50\% |
| 18 | 6,733 |  | 756,317,121 |  | 801,463,802 |  | 790,351,391 | 133\% | 5.97\% | 4.50\% |
| 19 | 5,421 |  | 621,799,740 |  | 660,727,900 |  | 654,444,226 | 119\% | 6.26\% | 5.25\% |
| 20 | 3,194 |  | 387,246,988 |  | 406,438,315 |  | 403,704,985 | 117\% | 4.96\% | 4.25\% |
| 21 | 2,153 |  | 270,230,617 |  | 279,976,013 |  | 281,715,418 | 85\% | 3.61\% | 4.25\% |
| 22 | 1,754 |  | 217,079,054 |  | 227,927,268 |  | 225,762,216 | 125\% | 5.00\% | 4.00\% |
| 23 | 1,504 |  | 184,413,067 |  | 196,174,753 |  | 191,789,590 | 159\% | 6.38\% | 4.00\% |
| 24 | 1,422 |  | 178,633,467 |  | 187,903,254 |  | 185,778,806 | 130\% | 5.19\% | 4.00\% |
| 25 | 1,251 |  | 161,815,401 |  | 168,103,866 |  | 168,288,017 | 97\% | 3.89\% | 4.00\% |
| 26 | 984 |  | 129,650,219 |  | 133,850,369 |  | 134,836,228 | 81\% | 3.24\% | 4.00\% |
| 27 | 730 |  | 97,410,497 |  | 100,139,559 |  | 101,306,917 | 70\% | 2.80\% | 4.00\% |
| 28 | 651 |  | 88,182,484 |  | 91,367,854 |  | 91,709,783 | 90\% | 3.61\% | 4.00\% |
| 29 | 487 |  | 69,139,284 |  | 70,833,584 |  | 71,904,855 | 61\% | 2.45\% | 4.00\% |
| 30+ | 846 |  | 130,013,036 |  | 132,008,700 |  | 135,213,557 | 38\% | 1.53\% | 4.00\% |
| Total | 131,058 |  | 12,494,854,744 |  | 13,520,899,878 |  | ,294,465,658 | 128\% | 8.21\% | 6.40\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

TABLE 9B 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Total Salary BOY |  | Estimated Actual Merit Salary EOY |  | Expected Merit Salary <br> EOY |  | Actual / Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 1,239 | \$ | 61,713,672 | \$ | 66,596,547 | \$ | 61,713,672 |  | 7.91\% | 0.00\% |
| 1 | 5,144 |  | 259,980,103 |  | 283,691,405 |  | 270,379,307 | 228\% | 9.12\% | 4.00\% |
| 2 | 5,205 |  | 274,445,387 |  | 315,115,496 |  | 301,889,926 | 148\% | 14.82\% | 10.00\% |
| 3 | 6,515 |  | 376,946,561 |  | 428,864,434 |  | 422,180,148 | 115\% | 13.77\% | 12.00\% |
| 4 | 8,511 |  | 552,782,513 |  | 644,589,942 |  | 652,283,365 | 92\% | 16.61\% | 18.00\% |
| 5 | 8,840 |  | 662,457,525 |  | 819,423,217 |  | 881,068,508 | 72\% | 23.69\% | 33.00\% |
| 6 | 8,171 |  | 762,338,110 |  | 811,702,868 |  | 773,010,844 | 463\% | 6.48\% | 1.40\% |
| 7 | 7,489 |  | 727,610,955 |  | 754,783,891 |  | 739,252,730 | 233\% | 3.73\% | 1.60\% |
| 8 | 6,119 |  | 602,598,666 |  | 622,842,047 |  | 613,445,442 | 187\% | 3.36\% | 1.80\% |
| 9 | 5,458 |  | 536,540,819 |  | 565,174,636 |  | 553,710,125 | 167\% | 5.34\% | 3.20\% |
| 10 | 5,123 |  | 517,113,740 |  | 543,420,652 |  | 527,456,015 | 254\% | 5.09\% | 2.00\% |
| 11 | 5,087 |  | 520,214,188 |  | 545,192,250 |  | 530,098,258 | 253\% | 4.80\% | 1.90\% |
| 12 | 4,795 |  | 502,559,766 |  | 525,099,993 |  | 511,605,842 | 249\% | 4.49\% | 1.80\% |
| 13 | 4,523 |  | 484,130,244 |  | 504,750,485 |  | 492,360,458 | 251\% | 4.26\% | 1.70\% |
| 14 | 4,710 |  | 505,206,677 |  | 532,221,110 |  | 519,857,671 | 184\% | 5.35\% | 2.90\% |
| 15 | 4,798 |  | 519,248,823 |  | 550,393,764 |  | 527,037,555 | 400\% | 6.00\% | 1.50\% |
| 16 | 5,842 |  | 633,044,373 |  | 671,106,804 |  | 641,906,994 | 429\% | 6.01\% | 1.40\% |
| 17 | 6,359 |  | 703,991,647 |  | 737,752,778 |  | 713,143,538 | 369\% | 4.80\% | 1.30\% |
| 18 | 6,733 |  | 756,317,121 |  | 789,854,544 |  | 765,392,926 | 370\% | 4.43\% | 1.20\% |
| 19 | 5,421 |  | 621,799,740 |  | 651,183,447 |  | 636,722,934 | 197\% | 4.73\% | 2.40\% |
| 20 | 3,194 |  | 387,246,988 |  | 400,494,181 |  | 391,119,458 | 342\% | 3.42\% | 1.00\% |
| 21 | 2,153 |  | 270,230,617 |  | 275,828,048 |  | 272,662,693 | 230\% | 2.07\% | 0.90\% |
| 22 | 1,754 |  | 217,079,054 |  | 224,595,165 |  | 218,815,686 | 433\% | 3.46\% | 0.80\% |
| 23 | 1,504 |  | 184,413,067 |  | 193,344,064 |  | 185,703,958 | 692\% | 4.84\% | 0.70\% |
| 24 | 1,422 |  | 178,633,467 |  | 185,161,280 |  | 179,705,268 | 609\% | 3.65\% | 0.60\% |
| 25 | 1,251 |  | 161,815,401 |  | 165,620,045 |  | 162,624,478 | 470\% | 2.35\% | 0.50\% |
| 26 | 984 |  | 129,650,219 |  | 131,860,274 |  | 130,298,470 | 341\% | 1.70\% | 0.50\% |
| 27 | 730 |  | 97,410,497 |  | 98,644,335 |  | 97,897,549 | 253\% | 1.27\% | 0.50\% |
| 28 | 651 |  | 88,182,484 |  | 90,014,277 |  | 88,623,396 | 415\% | 2.08\% | 0.50\% |
| 29 | 487 |  | 69,139,284 |  | 69,772,315 |  | 69,484,980 | 183\% | 0.92\% | 0.50\% |
| 30+ | 846 |  | 130,013,036 |  | 130,013,036 |  | 130,663,101 |  | 0.00\% | 0.50\% |
| Total | 131,058 |  | 12,494,854,744 |  | ,329,107,327 |  | 3,062,115,298 | 147\% | 6.68\% | 4.54\% |

The rates for expected merit salary increases are based on actual rates of increase for total salary, adjusted for inflation of $2.00 \%$.
Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

TABLE 9B

| Service | Life Years Exposed | Total Salary BOY |  | Estimated Actual Merit Salary EOY |  | Proposed Merit Salary EOY |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 1,239 | \$ | 61,713,672 | \$ | 66,596,547 | \$ | 62,330,809 | 791\% | 7.91\% | 1.00\% |
| 1 | 5,144 |  | 259,980,103 |  | 283,691,405 |  | 267,779,506 | 304\% | 9.12\% | 3.00\% |
| 2 | 5,205 |  | 274,445,387 |  | 315,115,496 |  | 290,912,110 | 247\% | 14.82\% | 6.00\% |
| 3 | 6,515 |  | 376,946,561 |  | 428,864,434 |  | 403,332,820 | 197\% | 13.77\% | 7.00\% |
| 4 | 8,511 |  | 552,782,513 |  | 644,589,942 |  | 606,678,808 | 170\% | 16.61\% | 9.75\% |
| 5 | 8,840 |  | 662,457,525 |  | 819,423,217 |  | 776,731,448 | 137\% | 23.69\% | 17.25\% |
| 6 | 8,171 |  | 762,338,110 |  | 811,702,868 |  | 768,055,646 | 863\% | 6.48\% | 0.75\% |
| 7 | 7,489 |  | 727,610,955 |  | 754,783,891 |  | 734,887,065 | 373\% | 3.73\% | 1.00\% |
| 8 | 6,119 |  | 602,598,666 |  | 622,842,047 |  | 608,624,653 | 336\% | 3.36\% | 1.00\% |
| 9 | 5,458 |  | 536,540,819 |  | 565,174,636 |  | 545,930,283 | 305\% | 5.34\% | 1.75\% |
| 10 | 5,123 |  | 517,113,740 |  | 543,420,652 |  | 522,284,877 | 509\% | 5.09\% | 1.00\% |
| 11 | 5,087 |  | 520,214,188 |  | 545,192,250 |  | 525,416,330 | 480\% | 4.80\% | 1.00\% |
| 12 | 4,795 |  | 502,559,766 |  | 525,099,993 |  | 507,585,364 | 449\% | 4.49\% | 1.00\% |
| 13 | 4,523 |  | 484,130,244 |  | 504,750,485 |  | 487,761,221 | 568\% | 4.26\% | 0.75\% |
| 14 | 4,710 |  | 505,206,677 |  | 532,221,110 |  | 512,784,777 | 356\% | 5.35\% | 1.50\% |
| 15 | 4,798 |  | 519,248,823 |  | 550,393,764 |  | 523,143,189 | 800\% | 6.00\% | 0.75\% |
| 16 | 5,842 |  | 633,044,373 |  | 671,106,804 |  | 637,792,206 | 802\% | 6.01\% | 0.75\% |
| 17 | 6,359 |  | 703,991,647 |  | 737,752,778 |  | 707,511,605 | 959\% | 4.80\% | 0.50\% |
| 18 | 6,733 |  | 756,317,121 |  | 789,854,544 |  | 760,098,707 | 887\% | 4.43\% | 0.50\% |
| 19 | 5,421 |  | 621,799,740 |  | 651,183,447 |  | 629,572,237 | 378\% | 4.73\% | 1.25\% |
| 20 | 3,194 |  | 387,246,988 |  | 400,494,181 |  | 388,215,105 | 1368\% | 3.42\% | 0.25\% |
| 21 | 2,153 |  | 270,230,617 |  | 275,828,048 |  | 270,906,194 | 829\% | 2.07\% | 0.25\% |
| 22 | 1,754 |  | 217,079,054 |  | 224,595,165 |  | 217,079,054 |  | 3.46\% | 0.00\% |
| 23 | 1,504 |  | 184,413,067 |  | 193,344,064 |  | 184,413,067 |  | 4.84\% | 0.00\% |
| 24 | 1,422 |  | 178,633,467 |  | 185,161,280 |  | 178,633,467 |  | 3.65\% | 0.00\% |
| 25 | 1,251 |  | 161,815,401 |  | 165,620,045 |  | 161,815,401 |  | 2.35\% | 0.00\% |
| 26 | 984 |  | 129,650,219 |  | 131,860,274 |  | 129,650,219 |  | 1.70\% | 0.00\% |
| 27 | 730 |  | 97,410,497 |  | 98,644,335 |  | 97,410,497 |  | 1.27\% | 0.00\% |
| 28 | 651 |  | 88,182,484 |  | 90,014,277 |  | 88,182,484 |  | 2.08\% | 0.00\% |
| 29 | 487 |  | 69,139,284 |  | 69,772,315 |  | 69,139,284 |  | 0.92\% | 0.00\% |
| 30+ | 846 |  | 130,013,036 |  | 130,013,036 |  | 130,013,036 |  | 0.00\% | 0.00\% |
| Total | 131,058 |  | 12,494,854,744 |  | 13,329,107,327 |  | ,794,671,468 | 278\% | 6.68\% | 2.40\% |

Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

TABLE 9A

| Service | Life Years Exposed | Total Salary BOY |  | Actual Salary EOY |  | $\underline{\text { Expected Salary EOY }}$ |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 5,406 | \$ | 227,244,580 | \$ | 266,690,553 | \$ | 234,061,917 | 579\% | 17.36\% | 3.00\% |
| 1 | 17,887 |  | 799,313,304 |  | 894,924,387 |  | 855,265,235 | 171\% | 11.96\% | 7.00\% |
| 2 | 17,285 |  | 847,983,394 |  | 947,538,539 |  | 958,221,235 | 90\% | 11.74\% | 13.00\% |
| 3 | 18,132 |  | 970,562,018 |  | 1,089,122,536 |  | 1,116,146,321 | 81\% | 12.22\% | 15.00\% |
| 4 | 17,852 |  | 1,056,626,081 |  | 1,221,770,984 |  | 1,278,517,558 | 74\% | 15.63\% | 21.00\% |
| 5 | 17,406 |  | 1,154,655,410 |  | 1,479,062,321 |  | 1,570,331,358 | 78\% | 28.10\% | 36.00\% |
| 6 | 16,245 |  | 1,344,841,281 |  | 1,440,002,801 |  | 1,404,014,297 | 161\% | 7.08\% | 4.40\% |
| 7 | 15,246 |  | 1,292,803,590 |  | 1,362,610,869 |  | 1,352,272,555 | 117\% | 5.40\% | 4.60\% |
| 8 | 14,427 |  | 1,211,664,041 |  | 1,281,197,014 |  | 1,269,823,915 | 120\% | 5.74\% | 4.80\% |
| 9 | 13,745 |  | 1,149,650,522 |  | 1,230,459,778 |  | 1,220,928,854 | 113\% | 7.03\% | 6.20\% |
| 10 | 14,277 |  | 1,204,921,824 |  | 1,286,701,600 |  | 1,265,167,915 | 136\% | 6.79\% | 5.00\% |
| 11 | 14,889 |  | 1,265,974,866 |  | 1,344,931,247 |  | 1,328,007,634 | 127\% | 6.24\% | 4.90\% |
| 12 | 14,585 |  | 1,265,945,413 |  | 1,337,939,835 |  | 1,326,710,793 | 118\% | 5.69\% | 4.80\% |
| 13 | 15,220 |  | 1,324,210,139 |  | 1,401,138,466 |  | 1,386,448,016 | 124\% | 5.81\% | 4.70\% |
| 14 | 14,763 |  | 1,318,171,425 |  | 1,402,916,963 |  | 1,395,943,539 | 109\% | 6.43\% | 5.90\% |
| 15 | 14,217 |  | 1,297,271,947 |  | 1,385,041,732 |  | 1,355,649,185 | 150\% | 6.77\% | 4.50\% |
| 16 | 14,736 |  | 1,373,308,501 |  | 1,466,501,056 |  | 1,433,734,075 | 154\% | 6.79\% | 4.40\% |
| 17 | 15,885 |  | 1,496,229,459 |  | 1,590,125,200 |  | 1,560,567,326 | 146\% | 6.28\% | 4.30\% |
| 18 | 16,154 |  | 1,538,757,697 |  | 1,629,360,326 |  | 1,603,385,520 | 140\% | 5.89\% | 4.20\% |
| 19 | 10,768 |  | 1,086,794,643 |  | 1,153,373,297 |  | 1,145,481,554 | 113\% | 6.13\% | 5.40\% |
| 20 | 6,345 |  | 677,476,665 |  | 714,536,596 |  | 704,575,732 | 137\% | 5.47\% | 4.00\% |
| 21 | 4,889 |  | 533,577,273 |  | 558,450,672 |  | 554,386,787 | 120\% | 4.66\% | 3.90\% |
| 22 | 3,996 |  | 440,437,195 |  | 463,748,879 |  | 457,173,808 | 139\% | 5.29\% | 3.80\% |
| 23 | 3,134 |  | 352,962,994 |  | 373,454,114 |  | 366,022,625 | 157\% | 5.81\% | 3.70\% |
| 24 | 2,583 |  | 302,183,275 |  | 317,509,254 |  | 313,061,873 | 141\% | 5.07\% | 3.60\% |
| 25 | 2,023 |  | 247,754,736 |  | 258,252,238 |  | 256,426,152 | 121\% | 4.24\% | 3.50\% |
| 26 | 1,562 |  | 197,538,305 |  | 205,336,134 |  | 204,452,146 | 113\% | 3.95\% | 3.50\% |
| 27 | 1,108 |  | 144,644,994 |  | 149,496,138 |  | 149,707,569 | 96\% | 3.35\% | 3.50\% |
| 28 | 802 |  | 107,347,378 |  | 111,489,169 |  | 111,104,536 | 110\% | 3.86\% | 3.50\% |
| 29 | 584 |  | 80,499,087 |  | 82,757,751 |  | 83,316,555 | 80\% | 2.81\% | 3.50\% |
| 30+ | 1,809 |  | 243,467,544 |  | 251,155,188 |  | 251,988,908 | 90\% | 3.16\% | 3.50\% |
| Total | 327,960 |  | 26,554,819,581 |  | 28,697,595,637 |  | 28,512,895,492 | 109\% | 8.07\% | 7.37\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

TABLE 9A 10-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Total Salary BOY |  | Actual Salary EOY |  | $\underline{\text { Proposed Salary EOY }}$ |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 5,406 | \$ | 227,244,580 | \$ | 266,690,553 | \$ | 238,606,809 | 347\% | 17.36\% | 5.00\% |
| 1 | 17,887 |  | 799,313,304 |  | 894,924,387 |  | 855,265,235 | 171\% | 11.96\% | 7.00\% |
| 2 | 17,285 |  | 847,983,394 |  | 947,538,539 |  | 932,781,733 | 117\% | 11.74\% | 10.00\% |
| 3 | 18,132 |  | 970,562,018 |  | 1,089,122,536 |  | 1,077,323,840 | 111\% | 12.22\% | 11.00\% |
| 4 | 17,852 |  | 1,056,626,081 |  | 1,221,770,984 |  | 1,201,912,167 | 114\% | 15.63\% | 13.75\% |
| 5 | 17,406 |  | 1,154,655,410 |  | 1,479,062,321 |  | 1,400,019,685 | 132\% | 28.10\% | 21.25\% |
| 6 | 16,245 |  | 1,344,841,281 |  | 1,440,002,801 |  | 1,408,721,242 | 149\% | 7.08\% | 4.75\% |
| 7 | 15,246 |  | 1,292,803,590 |  | 1,362,610,869 |  | 1,357,443,770 | 108\% | 5.40\% | 5.00\% |
| 8 | 14,427 |  | 1,211,664,041 |  | 1,281,197,014 |  | 1,272,247,243 | 115\% | 5.74\% | 5.00\% |
| 9 | 13,745 |  | 1,149,650,522 |  | 1,230,459,778 |  | 1,215,755,427 | 122\% | 7.03\% | 5.75\% |
| 10 | 14,277 |  | 1,204,921,824 |  | 1,286,701,600 |  | 1,265,167,915 | 136\% | 6.79\% | 5.00\% |
| 11 | 14,889 |  | 1,265,974,866 |  | 1,344,931,247 |  | 1,329,273,609 | 125\% | 6.24\% | 5.00\% |
| 12 | 14,585 |  | 1,265,945,413 |  | 1,337,939,835 |  | 1,329,242,684 | 114\% | 5.69\% | 5.00\% |
| 13 | 15,220 |  | 1,324,210,139 |  | 1,401,138,466 |  | 1,387,110,121 | 122\% | 5.81\% | 4.75\% |
| 14 | 14,763 |  | 1,318,171,425 |  | 1,402,916,963 |  | 1,390,670,853 | 117\% | 6.43\% | 5.50\% |
| 15 | 14,217 |  | 1,297,271,947 |  | 1,385,041,732 |  | 1,358,892,364 | 142\% | 6.77\% | 4.75\% |
| 16 | 14,736 |  | 1,373,308,501 |  | 1,466,501,056 |  | 1,438,540,655 | 143\% | 6.79\% | 4.75\% |
| 17 | 15,885 |  | 1,496,229,459 |  | 1,590,125,200 |  | 1,563,559,785 | 139\% | 6.28\% | 4.50\% |
| 18 | 16,154 |  | 1,538,757,697 |  | 1,629,360,326 |  | 1,608,001,793 | 131\% | 5.89\% | 4.50\% |
| 19 | 10,768 |  | 1,086,794,643 |  | 1,153,373,297 |  | 1,143,851,362 | 117\% | 6.13\% | 5.25\% |
| 20 | 6,345 |  | 677,476,665 |  | 714,536,596 |  | 706,269,423 | 129\% | 5.47\% | 4.25\% |
| 21 | 4,889 |  | 533,577,273 |  | 558,450,672 |  | 556,254,307 | 110\% | 4.66\% | 4.25\% |
| 22 | 3,996 |  | 440,437,195 |  | 463,748,879 |  | 458,054,683 | 132\% | 5.29\% | 4.00\% |
| 23 | 3,134 |  | 352,962,994 |  | 373,454,114 |  | 367,081,514 | 145\% | 5.81\% | 4.00\% |
| 24 | 2,583 |  | 302,183,275 |  | 317,509,254 |  | 314,270,606 | 127\% | 5.07\% | 4.00\% |
| 25 | 2,023 |  | 247,754,736 |  | 258,252,238 |  | 257,664,925 | 106\% | 4.24\% | 4.00\% |
| 26 | 1,562 |  | 197,538,305 |  | 205,336,134 |  | 205,439,837 | 99\% | 3.95\% | 4.00\% |
| 27 | 1,108 |  | 144,644,994 |  | 149,496,138 |  | 150,430,794 | 84\% | 3.35\% | 4.00\% |
| 28 | 802 |  | 107,347,378 |  | 111,489,169 |  | 111,641,273 | 96\% | 3.86\% | 4.00\% |
| 29 | 584 |  | 80,499,087 |  | 82,757,751 |  | 83,719,050 | 70\% | 2.81\% | 4.00\% |
| 30+ | 1,809 |  | 243,467,544 |  | 251,155,188 |  | 253,206,246 | 79\% | 3.16\% | 4.00\% |
| Total | 327,960 |  | 26,554,819,581 |  | 28,697,595,637 |  | 28,238,420,951 | 127\% | 8.07\% | 6.34\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

## TABLE 9B

10-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Total Salary BOY |  | Estimated Actual Merit Salary EOY |  | Expected Merit Salary <br> EOY |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 5,406 | \$ | 227,244,580 | \$ | 239,124,567 | \$ | 227,244,580 |  | 5.23\% | 0.00\% |
| 1 | 17,887 |  | 799,313,304 |  | 840,227,592 |  | 831,285,836 | 128\% | 5.12\% | 4.00\% |
| 2 | 17,285 |  | 847,983,394 |  | 890,286,435 |  | 932,781,733 | 50\% | 4.99\% | 10.00\% |
| 3 | 18,132 |  | 970,562,018 |  | 1,017,943,661 |  | 1,087,029,460 | 41\% | 4.88\% | 12.00\% |
| 4 | 17,852 |  | 1,056,626,081 |  | 1,106,675,229 |  | 1,246,818,776 | 26\% | 4.74\% | 18.00\% |
| 5 | 17,406 |  | 1,154,655,410 |  | 1,205,357,250 |  | 1,535,691,695 | 13\% | 4.39\% | 33.00\% |
| 6 | 16,245 |  | 1,344,841,281 |  | 1,388,519,441 |  | 1,363,669,059 | 232\% | 3.25\% | 1.40\% |
| 7 | 15,246 |  | 1,292,803,590 |  | 1,333,791,993 |  | 1,313,488,447 | 198\% | 3.17\% | 1.60\% |
| 8 | 14,427 |  | 1,211,664,041 |  | 1,250,217,153 |  | 1,233,473,994 | 177\% | 3.18\% | 1.80\% |
| 9 | 13,745 |  | 1,149,650,522 |  | 1,186,182,361 |  | 1,186,439,339 | 99\% | 3.18\% | 3.20\% |
| 10 | 14,277 |  | 1,204,921,824 |  | 1,242,477,530 |  | 1,229,020,260 | 156\% | 3.12\% | 2.00\% |
| 11 | 14,889 |  | 1,265,974,866 |  | 1,304,521,257 |  | 1,290,028,388 | 160\% | 3.04\% | 1.90\% |
| 12 | 14,585 |  | 1,265,945,413 |  | 1,304,377,385 |  | 1,288,732,430 | 169\% | 3.04\% | 1.80\% |
| 13 | 15,220 |  | 1,324,210,139 |  | 1,364,514,218 |  | 1,346,721,711 | 179\% | 3.04\% | 1.70\% |
| 14 | 14,763 |  | 1,318,171,425 |  | 1,358,468,991 |  | 1,356,398,396 | 105\% | 3.06\% | 2.90\% |
| 15 | 14,217 |  | 1,297,271,947 |  | 1,336,030,567 |  | 1,316,731,026 | 199\% | 2.99\% | 1.50\% |
| 16 | 14,736 |  | 1,373,308,501 |  | 1,412,786,022 |  | 1,392,534,820 | 205\% | 2.87\% | 1.40\% |
| 17 | 15,885 |  | 1,496,229,459 |  | 1,539,150,121 |  | 1,515,680,442 | 221\% | 2.87\% | 1.30\% |
| 18 | 16,154 |  | 1,538,757,697 |  | 1,582,924,694 |  | 1,557,222,789 | 239\% | 2.87\% | 1.20\% |
| 19 | 10,768 |  | 1,086,794,643 |  | 1,117,892,950 |  | 1,112,877,714 | 119\% | 2.86\% | 2.40\% |
| 20 | 6,345 |  | 677,476,665 |  | 695,216,050 |  | 684,251,432 | 262\% | 2.62\% | 1.00\% |
| 21 | 4,889 |  | 533,577,273 |  | 546,305,332 |  | 538,379,468 | 265\% | 2.39\% | 0.90\% |
| 22 | 3,996 |  | 440,437,195 |  | 450,167,995 |  | 443,960,693 | 276\% | 2.21\% | 0.80\% |
| 23 | 3,134 |  | 352,962,994 |  | 360,371,866 |  | 355,433,735 | 300\% | 2.10\% | 0.70\% |
| 24 | 2,583 |  | 302,183,275 |  | 308,147,825 |  | 303,996,375 | 329\% | 1.97\% | 0.60\% |
| 25 | 2,023 |  | 247,754,736 |  | 252,652,577 |  | 248,993,510 | 395\% | 1.98\% | 0.50\% |
| 26 | 1,562 |  | 197,538,305 |  | 197,538,305 |  | 198,525,997 |  | 0.00\% | 0.50\% |
| 27 | 1,108 |  | 144,644,994 |  | 144,644,994 |  | 145,368,219 |  | 0.00\% | 0.50\% |
| 28 | 802 |  | 107,347,378 |  | 107,347,378 |  | 107,884,115 |  | 0.00\% | 0.50\% |
| 29 | 584 |  | 80,499,087 |  | 80,499,087 |  | 80,901,582 |  | 0.00\% | 0.50\% |
| 30+ | 1,809 |  | 243,467,544 |  | 243,467,544 |  | 244,684,882 |  | 0.00\% | 0.50\% |
| Total | 327,960 |  | 26,554,819,581 |  | 27,407,828,369 |  | 27,716,250,905 | 73\% | 3.21\% | 4.37\% |

The rates for expected merit salary increases are based on actual rates of increase for total salary, adjusted for inflation of $2.43 \%$. Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

TABLE 9B

| Service | Life Years Exposed | Total Salary BOY |  |  |  |  |  |  | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | ated Actual Merit <br> Salary EOY |  | sed Merit Salary EOY | Actual / <br> Proposed | Actual \% | Proposed \% |
| (1) | (2) |  | (3) |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 5,406 | \$ | 227,244,580 | \$ | 239,124,567 | \$ | 229,517,026 | 523\% | 5.23\% | 1.00\% |
| 1 | 17,887 |  | 799,313,304 |  | 840,227,592 |  | 823,292,703 | 171\% | 5.12\% | 3.00\% |
| 2 | 17,285 |  | 847,983,394 |  | 890,286,435 |  | 898,862,398 | 83\% | 4.99\% | 6.00\% |
| 3 | 18,132 |  | 970,562,018 |  | 1,017,943,661 |  | 1,038,501,359 | 70\% | 4.88\% | 7.00\% |
| 4 | 17,852 |  | 1,056,626,081 |  | 1,106,675,229 |  | 1,159,647,124 | 49\% | 4.74\% | 9.75\% |
| 5 | 17,406 |  | 1,154,655,410 |  | 1,205,357,250 |  | 1,353,833,468 | 25\% | 4.39\% | 17.25\% |
| 6 | 16,245 |  | 1,344,841,281 |  | 1,388,519,441 |  | 1,354,927,591 | 433\% | 3.25\% | 0.75\% |
| 7 | 15,246 |  | 1,292,803,590 |  | 1,333,791,993 |  | 1,305,731,626 | 317\% | 3.17\% | 1.00\% |
| 8 | 14,427 |  | 1,211,664,041 |  | 1,250,217,153 |  | 1,223,780,681 | 318\% | 3.18\% | 1.00\% |
| 9 | 13,745 |  | 1,149,650,522 |  | 1,186,182,361 |  | 1,169,769,406 | 182\% | 3.18\% | 1.75\% |
| 10 | 14,277 |  | 1,204,921,824 |  | 1,242,477,530 |  | 1,216,971,042 | 312\% | 3.12\% | 1.00\% |
| 11 | 14,889 |  | 1,265,974,866 |  | 1,304,521,257 |  | 1,278,634,615 | 304\% | 3.04\% | 1.00\% |
| 12 | 14,585 |  | 1,265,945,413 |  | 1,304,377,385 |  | 1,278,604,867 | 304\% | 3.04\% | 1.00\% |
| 13 | 15,220 |  | 1,324,210,139 |  | 1,364,514,218 |  | 1,334,141,715 | 406\% | 3.04\% | 0.75\% |
| 14 | 14,763 |  | 1,318,171,425 |  | 1,358,468,991 |  | 1,337,943,996 | 204\% | 3.06\% | 1.50\% |
| 15 | 14,217 |  | 1,297,271,947 |  | 1,336,030,567 |  | 1,307,001,487 | 398\% | 2.99\% | 0.75\% |
| 16 | 14,736 |  | 1,373,308,501 |  | 1,412,786,022 |  | 1,383,608,315 | 383\% | 2.87\% | 0.75\% |
| 17 | 15,885 |  | 1,496,229,459 |  | 1,539,150,121 |  | 1,503,710,606 | 574\% | 2.87\% | 0.50\% |
| 18 | 16,154 |  | 1,538,757,697 |  | 1,582,924,694 |  | 1,546,451,485 | 574\% | 2.87\% | 0.50\% |
| 19 | 10,768 |  | 1,086,794,643 |  | 1,117,892,950 |  | 1,100,379,576 | 229\% | 2.86\% | 1.25\% |
| 20 | 6,345 |  | 677,476,665 |  | 695,216,050 |  | 679,170,357 | 1047\% | 2.62\% | 0.25\% |
| 21 | 4,889 |  | 533,577,273 |  | 546,305,332 |  | 534,911,216 | 954\% | 2.39\% | 0.25\% |
| 22 | 3,996 |  | 440,437,195 |  | 450,167,995 |  | 440,437,195 |  | 2.21\% | 0.00\% |
| 23 | 3,134 |  | 352,962,994 |  | 360,371,866 |  | 352,962,994 |  | 2.10\% | 0.00\% |
| 24 | 2,583 |  | 302,183,275 |  | 308,147,825 |  | 302,183,275 |  | 1.97\% | 0.00\% |
| 25 | 2,023 |  | 247,754,736 |  | 252,652,577 |  | 247,754,736 |  | 1.98\% | 0.00\% |
| 26 | 1,562 |  | 197,538,305 |  | 197,538,305 |  | 197,538,305 |  | 0.00\% | 0.00\% |
| 27 | 1,108 |  | 144,644,994 |  | 144,644,994 |  | 144,644,994 |  | 0.00\% | 0.00\% |
| 28 | 802 |  | 107,347,378 |  | 107,347,378 |  | 107,347,378 |  | 0.00\% | 0.00\% |
| 29 | 584 |  | 80,499,087 |  | 80,499,087 |  | 80,499,087 |  | 0.00\% | 0.00\% |
| 30+ | 1,809 |  | 243,467,544 |  | 243,467,544 |  | 243,467,544 |  | 0.00\% | 0.00\% |
| Total | 327,960 |  | 26,554,819,581 |  | 27,407,828,369 |  | 27,176,228,167 | $2.34 \%$ | 3.21\% | 2.34\% |

Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Plan Year | TABLE 9C | Total Salary BOY |  | Actual Salary EOY |  | 10-YEAR PERIOD ENDING 6/30/2013 <br> Increase \% |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending June 30, | Life Years Exposed |  |  | Expected Salary EOY | Actual / Expected | Actual $(4) /(3)$ | Expected (5) / (3) |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (5) | (6) | (7) |
| 2004 | 32,984 | \$ | 2,112,071,947 | \$ | 2,382,615,850 | \$ | 2,257,125,616 | 187\% | 12.81\% | 6.87\% |
| 2005 | 31,988 |  | 2,242,984,595 |  | 2,375,818,283 |  | 2,395,404,839 | 87\% | 5.92\% | 6.80\% |
| 2006 | 32,264 |  | 2,289,757,894 |  | 2,409,198,769 |  | 2,460,043,264 | 70\% | 5.22\% | 7.44\% |
| 2007 | 32,453 |  | 2,314,853,674 |  | 2,483,933,934 |  | 2,482,075,885 | 101\% | 7.30\% | 7.22\% |
| 2008 | 33,013 |  | 2,422,431,999 |  | 2,664,821,649 |  | 2,604,870,851 | 133\% | 10.01\% | 7.53\% |
| 2009 | 34,200 |  | 2,677,864,728 |  | 2,860,307,274 |  | 2,876,414,097 | 92\% | 6.81\% | 7.41\% |
| 2010 | 34,100 |  | 2,788,396,413 |  | 3,353,358,741 |  | 3,010,909,088 | 254\% | 20.26\% | 7.98\% |
| 2011 | 32,452 |  | 3,148,251,928 |  | 3,409,102,059 |  | 3,401,238,940 | 103\% | 8.29\% | 8.04\% |
| 2012 | 31,780 |  | 3,252,352,542 |  | 3,345,729,411 |  | 3,492,503,614 | 39\% | 2.87\% | 7.38\% |
| 2013 | 32,726 |  | 3,305,853,861 |  | 3,412,709,667 |  | 3,532,309,298 | 47\% | 3.23\% | 6.85\% |
| Total | 327,960 |  | 26,554,819,581 |  | 28,697,595,637 |  | 28,512,895,492 | 109\% | 8.07\% | 7.37\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND OVERTIME PAY EXPERIENCE FOR ALL YEARS MEN AND WOMEN

TABLE 10A

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 1,015 | \$ | 43,988,338 | \$ | 1,852,404 | \$ | 6,598,251 | 28\% | 4.21\% | 15.00\% |
| 1 | 4,954 |  | 217,475,276 |  | 14,525,347 |  | 32,621,291 | 45\% | 6.68\% | 15.00\% |
| 2 | 5,120 |  | 234,488,883 |  | 24,381,675 |  | 35,173,333 | 69\% | 10.40\% | 15.00\% |
| 3 | 6,391 |  | 321,618,436 |  | 38,550,810 |  | 48,242,765 | 80\% | 11.99\% | 15.00\% |
| 4 | 8,375 |  | 472,977,856 |  | 64,090,949 |  | 70,946,678 | 90\% | 13.55\% | 15.00\% |
| 5 | 8,698 |  | 567,102,185 |  | 78,264,255 |  | 85,065,328 | 92\% | 13.80\% | 15.00\% |
| 6 | 8,042 |  | 652,835,902 |  | 95,588,061 |  | 97,925,385 | 98\% | 14.64\% | 15.00\% |
| 7 | 7,359 |  | 622,103,793 |  | 94,537,577 |  | 93,315,569 | 101\% | 15.20\% | 15.00\% |
| 8 | 6,003 |  | 514,347,661 |  | 79,743,272 |  | 77,152,149 | 103\% | 15.50\% | 15.00\% |
| 9 | 5,336 |  | 456,519,029 |  | 71,802,995 |  | 68,477,854 | 105\% | 15.73\% | 15.00\% |
| 10 | 5,009 |  | 439,888,171 |  | 71,417,677 |  | 65,983,226 | 108\% | 16.24\% | 15.00\% |
| 11 | 4,955 |  | 440,959,007 |  | 71,915,926 |  | 66,143,851 | 109\% | 16.31\% | 15.00\% |
| 12 | 4,641 |  | 422,904,555 |  | 70,558,904 |  | 63,435,683 | 111\% | 16.68\% | 15.00\% |
| 13 | 4,348 |  | 404,491,165 |  | 68,424,137 |  | 60,673,675 | 113\% | 16.92\% | 15.00\% |
| 14 | 4,520 |  | 420,488,562 |  | 73,654,111 |  | 63,073,284 | 117\% | 17.52\% | 15.00\% |
| 15 | 4,568 |  | 427,929,612 |  | 78,451,746 |  | 64,189,442 | 122\% | 18.33\% | 15.00\% |
| 16 | 5,511 |  | 516,198,913 |  | 96,721,767 |  | 77,429,837 | 125\% | 18.74\% | 15.00\% |
| 17 | 6,008 |  | 574,361,924 |  | 110,212,877 |  | 86,154,289 | 128\% | 19.19\% | 15.00\% |
| 18 | 6,377 |  | 616,965,735 |  | 124,010,231 |  | 92,544,860 | 134\% | 20.10\% | 15.00\% |
| 19 | 5,064 |  | 498,127,117 |  | 106,024,460 |  | 74,719,067 | 142\% | 21.28\% | 15.00\% |
| 20 | 2,919 |  | 301,958,283 |  | 65,649,959 |  | 45,293,743 | 145\% | 21.74\% | 15.00\% |
| 21 | 1,921 |  | 204,701,384 |  | 44,996,964 |  | 30,705,208 | 147\% | 21.98\% | 15.00\% |
| 22 | 1,546 |  | 161,323,653 |  | 36,903,165 |  | 24,198,548 | 153\% | 22.88\% | 15.00\% |
| 23 | 1,300 |  | 135,202,076 |  | 30,741,835 |  | 18,928,291 | 162\% | 22.74\% | 14.00\% |
| 24 | 1,198 |  | 128,468,201 |  | 28,035,136 |  | 16,700,866 | 168\% | 21.82\% | 13.00\% |
| 25 | 1,022 |  | 112,656,436 |  | 24,802,785 |  | 13,518,772 | 183\% | 22.02\% | 12.00\% |
| 26 | 793 |  | 89,365,576 |  | 19,773,780 |  | 9,830,213 | 201\% | 22.13\% | 11.00\% |
| 27 | 574 |  | 65,515,744 |  | 13,998,528 |  | 6,551,574 | 214\% | 21.37\% | 10.00\% |
| 28 | 468 |  | 53,943,745 |  | 11,048,399 |  | 4,854,937 | 228\% | 20.48\% | 9.00\% |
| 29 | 308 |  | 36,712,532 |  | 7,285,192 |  | 2,937,003 | 248\% | 19.84\% | 8.00\% |
| 30 | 180 |  | 22,195,348 |  | 4,140,784 |  | 1,553,674 | 267\% | 18.66\% | 7.00\% |
| 31 | 110 |  | 13,981,351 |  | 2,380,961 |  | 838,881 | 284\% | 17.03\% | 6.00\% |
| 32 | 39 |  | 5,024,605 |  | 698,495 |  | 301,476 | 232\% | 13.90\% | 6.00\% |
| 33 | 19 |  | 2,485,906 |  | 427,676 |  | 149,154 | 287\% | 17.20\% | 6.00\% |
| 34 | 6 |  | 766,596 |  | 161,247 |  | 45,996 | 351\% | 21.03\% | 6.00\% |
| 35 | 9 |  | 1,025,286 |  | 221,095 |  | 61,517 | 359\% | 21.56\% | 6.00\% |
| 36 | 18 |  | 2,128,119 |  | 460,136 |  | 127,687 | 360\% | 21.62\% | 6.00\% |
| 37 | 13 |  | 1,692,485 |  | 283,731 |  | 101,549 | 279\% | 16.76\% | 6.00\% |
| 38 | 12 |  | 1,527,887 |  | 292,572 |  | 91,673 | 319\% | 19.15\% | 6.00\% |
| 39 | 7 |  | 868,673 |  | 199,452 |  | 52,120 | 383\% | 22.96\% | 6.00\% |
| 40 | 4 |  | 473,451 |  | 91,838 |  | 28,407 | 323\% | 19.40\% | 6.00\% |
| 41 | 3 |  | 382,949 |  | 80,350 |  | 22,977 | 350\% | 20.98\% | 6.00\% |
| 42 | 1 |  | 135,445 |  | 9,972 |  | 8,127 | 123\% | 7.36\% | 6.00\% |
| 43 | 0 |  | - |  | - |  | - |  |  | 6.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 6.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 6.00\% |
| Total | 124,764 |  | ,208,307,849 |  | 727,413,233 |  | 506,768,212 | 115\% | 16.92\% | 14.76\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND OVERTIME PAY EXPERIENCE FOR ALL YEARS MEN AND WOMEN

## TABLE 10A

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 1,015 | \$ | 43,988,338 | \$ | 1,852,404 | \$ | 7,038,134 | 26\% | 4.21\% | 16.00\% |
| 1 | 4,954 |  | 217,475,276 |  | 14,525,347 |  | 34,796,044 | 42\% | 6.68\% | 16.00\% |
| 2 | 5,120 |  | 234,488,883 |  | 24,381,675 |  | 37,518,221 | 65\% | 10.40\% | 16.00\% |
| 3 | 6,391 |  | 321,618,436 |  | 38,550,810 |  | 51,458,950 | 75\% | 11.99\% | 16.00\% |
| 4 | 8,375 |  | 472,977,856 |  | 64,090,949 |  | 75,676,457 | 85\% | 13.55\% | 16.00\% |
| 5 | 8,698 |  | 567,102,185 |  | 78,264,255 |  | 90,736,350 | 86\% | 13.80\% | 16.00\% |
| 6 | 8,042 |  | 652,835,902 |  | 95,588,061 |  | 104,453,744 | 92\% | 14.64\% | 16.00\% |
| 7 | 7,359 |  | 622,103,793 |  | 94,537,577 |  | 99,536,607 | 95\% | 15.20\% | 16.00\% |
| 8 | 6,003 |  | 514,347,661 |  | 79,743,272 |  | 82,295,626 | 97\% | 15.50\% | 16.00\% |
| 9 | 5,336 |  | 456,519,029 |  | 71,802,995 |  | 73,043,045 | 98\% | 15.73\% | 16.00\% |
| 10 | 5,009 |  | 439,888,171 |  | 71,417,677 |  | 70,382,107 | 101\% | 16.24\% | 16.00\% |
| 11 | 4,955 |  | 440,959,007 |  | 71,915,926 |  | 70,553,441 | 102\% | 16.31\% | 16.00\% |
| 12 | 4,641 |  | 422,904,555 |  | 70,558,904 |  | 67,664,729 | 104\% | 16.68\% | 16.00\% |
| 13 | 4,348 |  | 404,491,165 |  | 68,424,137 |  | 64,718,586 | 106\% | 16.92\% | 16.00\% |
| 14 | 4,520 |  | 420,488,562 |  | 73,654,111 |  | 67,278,170 | 109\% | 17.52\% | 16.00\% |
| 15 | 4,568 |  | 427,929,612 |  | 78,451,746 |  | 68,468,738 | 115\% | 18.33\% | 16.00\% |
| 16 | 5,511 |  | 516,198,913 |  | 96,721,767 |  | 82,591,826 | 117\% | 18.74\% | 16.00\% |
| 17 | 6,008 |  | 574,361,924 |  | 110,212,877 |  | 91,897,908 | 120\% | 19.19\% | 16.00\% |
| 18 | 6,377 |  | 616,965,735 |  | 124,010,231 |  | 98,714,518 | 126\% | 20.10\% | 16.00\% |
| 19 | 5,064 |  | 498,127,117 |  | 106,024,460 |  | 79,700,339 | 133\% | 21.28\% | 16.00\% |
| 20 | 2,919 |  | 301,958,283 |  | 65,649,959 |  | 48,313,325 | 136\% | 21.74\% | 16.00\% |
| 21 | 1,921 |  | 204,701,384 |  | 44,996,964 |  | 32,752,221 | 137\% | 21.98\% | 16.00\% |
| 22 | 1,546 |  | 161,323,653 |  | 36,903,165 |  | 25,811,784 | 143\% | 22.88\% | 16.00\% |
| 23 | 1,300 |  | 135,202,076 |  | 30,741,835 |  | 21,632,332 | 142\% | 22.74\% | 16.00\% |
| 24 | 1,198 |  | 128,468,201 |  | 28,035,136 |  | 20,554,912 | 136\% | 21.82\% | 16.00\% |
| 25 | 1,022 |  | 112,656,436 |  | 24,802,785 |  | 18,025,030 | 138\% | 22.02\% | 16.00\% |
| 26 | 793 |  | 89,365,576 |  | 19,773,780 |  | 14,298,492 | 138\% | 22.13\% | 16.00\% |
| 27 | 574 |  | 65,515,744 |  | 13,998,528 |  | 10,482,519 | 134\% | 21.37\% | 16.00\% |
| 28 | 468 |  | 53,943,745 |  | 11,048,399 |  | 8,630,999 | 128\% | 20.48\% | 16.00\% |
| 29 | 308 |  | 36,712,532 |  | 7,285,192 |  | 5,874,005 | 124\% | 19.84\% | 16.00\% |
| 30 | 180 |  | 22,195,348 |  | 4,140,784 |  | 3,551,256 | 117\% | 18.66\% | 16.00\% |
| 31 | 110 |  | 13,981,351 |  | 2,380,961 |  | 2,237,016 | 106\% | 17.03\% | 16.00\% |
| 32 | 39 |  | 5,024,605 |  | 698,495 |  | 803,937 | 87\% | 13.90\% | 16.00\% |
| 33 | 19 |  | 2,485,906 |  | 427,676 |  | 397,745 | 108\% | 17.20\% | 16.00\% |
| 34 | 6 |  | 766,596 |  | 161,247 |  | 122,655 | 131\% | 21.03\% | 16.00\% |
| 35 | 9 |  | 1,025,286 |  | 221,095 |  | 164,046 | 135\% | 21.56\% | 16.00\% |
| 36 | 18 |  | 2,128,119 |  | 460,136 |  | 340,499 | 135\% | 21.62\% | 16.00\% |
| 37 | 13 |  | 1,692,485 |  | 283,731 |  | 270,798 | 105\% | 16.76\% | 16.00\% |
| 38 | 12 |  | 1,527,887 |  | 292,572 |  | 244,462 | 120\% | 19.15\% | 16.00\% |
| 39 | 7 |  | 868,673 |  | 199,452 |  | 138,988 | 144\% | 22.96\% | 16.00\% |
| 40 | 4 |  | 473,451 |  | 91,838 |  | 75,752 | 121\% | 19.40\% | 16.00\% |
| 41 | 3 |  | 382,949 |  | 80,350 |  | 61,272 | 131\% | 20.98\% | 16.00\% |
| 42 | 1 |  | 135,445 |  | 9,972 |  | 21,671 | 46\% | 7.36\% | 16.00\% |
| 43 | 0 |  | - |  | - |  | - |  |  | 16.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 16.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 16.00\% |
| Total | 124,764 |  | ,208,307,849 |  | ,727,413,233 |  | 1,633,329,256 | 106\% | 16.92\% | 16.00\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND OVERTIME PAY EXPERIENCE BEFORE SERVICE RETIREMENT MEN AND WOMEN

TABLE 10B

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  | 0.00\% | 15.00\% |
| 1 | 0 |  | - |  | - |  | - |  | 0.00\% | 15.00\% |
| 2 | 0 |  | - |  | - |  | - |  | 0.00\% | 15.00\% |
| 3 | 0 |  | - |  | - |  | - |  | 0.00\% | 15.00\% |
| 4 | 0 |  | - |  | - |  | - |  | 0.00\% | 15.00\% |
| 5 | 0 |  | - |  | - |  | - |  | 0.00\% | 15.00\% |
| 6 | 0 |  | - |  | - |  | - |  | 0.00\% | 15.00\% |
| 7 | 0 |  | - |  | - |  | - |  | 0.00\% | 15.00\% |
| 8 | 0 |  | - |  | - |  | - |  | 0.00\% | 15.00\% |
| 9 | 1 | \$ | 133,352 | \$ | 31,619 | \$ | 20,003 | 158\% | 23.71\% | 15.00\% |
| 10 | 0 |  | - |  | - |  | - |  | 0.00\% | 15.00\% |
| 11 | 0 |  | - |  | - |  | - |  | 0.00\% | 15.00\% |
| 12 | 1 |  | 93,345 |  | 10,398 |  | 14,002 | 74\% | 11.14\% | 15.00\% |
| 13 | 1 |  | 84,330 |  | 11,734 |  | 12,649 | 93\% | 13.91\% | 15.00\% |
| 14 | 4 |  | 417,123 |  | 130,067 |  | 62,569 | 208\% | 31.18\% | 15.00\% |
| 15 | 0 |  | - |  | - |  | - |  | 0.00\% | 15.00\% |
| 16 | 25 |  | 2,424,390 |  | 507,564 |  | 363,659 | 140\% | 20.94\% | 15.00\% |
| 17 | 37 |  | 3,484,096 |  | 773,384 |  | 522,614 | 148\% | 22.20\% | 15.00\% |
| 18 | 22 |  | 2,216,037 |  | 430,722 |  | 332,406 | 130\% | 19.44\% | 15.00\% |
| 19 | 1,248 |  | 120,257,845 |  | 23,470,686 |  | 18,038,677 | 130\% | 19.52\% | 15.00\% |
| 20 | 1,134 |  | 110,890,648 |  | 24,694,804 |  | 16,633,597 | 148\% | 22.27\% | 15.00\% |
| 21 | 372 |  | 39,153,581 |  | 8,142,091 |  | 5,873,037 | 139\% | 20.80\% | 15.00\% |
| 22 | 191 |  | 20,007,858 |  | 4,310,245 |  | 3,001,179 | 144\% | 21.54\% | 15.00\% |
| 23 | 149 |  | 16,106,878 |  | 3,851,719 |  | 2,254,963 | 171\% | 23.91\% | 14.00\% |
| 24 | 158 |  | 17,034,560 |  | 4,095,520 |  | 2,214,493 | 185\% | 24.04\% | 13.00\% |
| 25 | 225 |  | 24,720,437 |  | 5,108,754 |  | 2,966,452 | 172\% | 20.67\% | 12.00\% |
| 26 | 130 |  | 14,901,568 |  | 2,970,306 |  | 1,639,173 | 181\% | 19.93\% | 11.00\% |
| 27 | 78 |  | 9,244,109 |  | 2,009,377 |  | 924,411 | 217\% | 21.74\% | 10.00\% |
| 28 | 50 |  | 5,879,475 |  | 1,372,085 |  | 529,153 | 259\% | 23.34\% | 9.00\% |
| 29 | 57 |  | 6,957,396 |  | 1,375,725 |  | 556,592 | 247\% | 19.77\% | 8.00\% |
| 30 | 34 |  | 4,225,372 |  | 864,960 |  | 295,776 | 292\% | 20.47\% | 7.00\% |
| 31 | 11 |  | 1,400,927 |  | 282,743 |  | 84,056 | 336\% | 20.18\% | 6.00\% |
| 32 | 6 |  | 766,989 |  | 153,822 |  | 46,019 | 334\% | 20.06\% | 6.00\% |
| 33 | 2 |  | 242,025 |  | 35,447 |  | 14,521 | 244\% | 14.65\% | 6.00\% |
| 34 | 2 |  | 257,039 |  | 48,762 |  | 15,422 | 316\% | 18.97\% | 6.00\% |
| 35 | 2 |  | 216,207 |  | 63,276 |  | 12,972 | 488\% | 29.27\% | 6.00\% |
| 36 | 2 |  | 224,548 |  | 18,786 |  | 13,473 | 139\% | 8.37\% | 6.00\% |
| 37 | 5 |  | 641,410 |  | 178,951 |  | 38,485 | 465\% | 27.90\% | 6.00\% |
| 38 | 2 |  | 217,454 |  | 11,480 |  | 13,047 | 88\% | 5.28\% | 6.00\% |
| 39 | 3 |  | 369,976 |  | 76,347 |  | 22,199 | 344\% | 20.64\% | 6.00\% |
| 40 | 0 |  | - |  | - |  | - |  | 0.00\% | 6.00\% |
| 41 | 1 |  | 122,291 |  | 21,366 |  | 7,337 | 291\% | 17.47\% | 6.00\% |
| 42 | 1 |  | 132,173 |  | 40,643 |  | 7,930 | 512\% | 30.75\% | 6.00\% |
| 43 | 1 |  | 109,734 |  | 27,279 |  | 6,584 | 414\% | 24.86\% | 6.00\% |
| 44 | 1 |  | 127,836 |  | 20,936 |  | 7,670 | 273\% | 16.38\% | 6.00\% |
| 45 | 0 |  | - |  | - |  | - |  | 0.00\% | 6.00\% |
| Total | 3,956 |  | 403,061,010 |  | 85,141,598 |  | 56,545,119 | 151\% | 21.12\% | 14.03\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND OVERTIME PAY EXPERIENCE BEFORE SERVICE RETIREMENT MEN AND WOMEN

TABLE 10B

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  | 0.00\% | 22.00\% |
| 1 | 0 |  | - |  | - |  | - |  | 0.00\% | 22.00\% |
| 2 | 0 |  | - |  | - |  | - |  | 0.00\% | 22.00\% |
| 3 | 0 |  | - |  | - |  | - |  | 0.00\% | 22.00\% |
| 4 | 0 |  | - |  | - |  | - |  | 0.00\% | 22.00\% |
| 5 | 0 |  | - |  | - |  | - |  | 0.00\% | 22.00\% |
| 6 | 0 |  | - |  | - |  | - |  | 0.00\% | 22.00\% |
| 7 | 0 |  | - |  | - |  | - |  | 0.00\% | 22.00\% |
| 8 | 0 |  | - |  | - |  | - |  | 0.00\% | 22.00\% |
| 9 | 1 | \$ | 133,352 | \$ | 31,619 | \$ | 29,337 | 108\% | 23.71\% | 22.00\% |
| 10 | 0 |  | - |  | - |  | - |  | 0.00\% | 22.00\% |
| 11 | 0 |  | - |  | - |  | - |  | 0.00\% | 22.00\% |
| 12 | 1 |  | 93,345 |  | 10,398 |  | 20,536 | 51\% | 11.14\% | 22.00\% |
| 13 | 1 |  | 84,330 |  | 11,734 |  | 18,553 | 63\% | 13.91\% | 22.00\% |
| 14 | 4 |  | 417,123 |  | 130,067 |  | 91,767 | 142\% | 31.18\% | 22.00\% |
| 15 | 0 |  | - |  | - |  | - |  | 0.00\% | 22.00\% |
| 16 | 25 |  | 2,424,390 |  | 507,564 |  | 533,366 | 95\% | 20.94\% | 22.00\% |
| 17 | 37 |  | 3,484,096 |  | 773,384 |  | 766,501 | 101\% | 22.20\% | 22.00\% |
| 18 | 22 |  | 2,216,037 |  | 430,722 |  | 487,528 | 88\% | 19.44\% | 22.00\% |
| 19 | 1,248 |  | 120,257,845 |  | 23,470,686 |  | 26,456,726 | 89\% | 19.52\% | 22.00\% |
| 20 | 1,134 |  | 110,890,648 |  | 24,694,804 |  | 24,395,943 | 101\% | 22.27\% | 22.00\% |
| 21 | 372 |  | 39,153,581 |  | 8,142,091 |  | 8,613,788 | 95\% | 20.80\% | 22.00\% |
| 22 | 191 |  | 20,007,858 |  | 4,310,245 |  | 4,401,729 | 98\% | 21.54\% | 22.00\% |
| 23 | 149 |  | 16,106,878 |  | 3,851,719 |  | 3,543,513 | 109\% | 23.91\% | 22.00\% |
| 24 | 158 |  | 17,034,560 |  | 4,095,520 |  | 3,747,603 | 109\% | 24.04\% | 22.00\% |
| 25 | 225 |  | 24,720,437 |  | 5,108,754 |  | 5,438,496 | 94\% | 20.67\% | 22.00\% |
| 26 | 130 |  | 14,901,568 |  | 2,970,306 |  | 3,278,345 | 91\% | 19.93\% | 22.00\% |
| 27 | 78 |  | 9,244,109 |  | 2,009,377 |  | 2,033,704 | 99\% | 21.74\% | 22.00\% |
| 28 | 50 |  | 5,879,475 |  | 1,372,085 |  | 1,293,485 | 106\% | 23.34\% | 22.00\% |
| 29 | 57 |  | 6,957,396 |  | 1,375,725 |  | 1,530,627 | 90\% | 19.77\% | 22.00\% |
| 30 | 34 |  | 4,225,372 |  | 864,960 |  | 929,582 | 93\% | 20.47\% | 22.00\% |
| 31 | 11 |  | 1,400,927 |  | 282,743 |  | 308,204 | 92\% | 20.18\% | 22.00\% |
| 32 | 6 |  | 766,989 |  | 153,822 |  | 168,738 | 91\% | 20.06\% | 22.00\% |
| 33 | 2 |  | 242,025 |  | 35,447 |  | 53,245 | 67\% | 14.65\% | 22.00\% |
| 34 | 2 |  | 257,039 |  | 48,762 |  | 56,549 | 86\% | 18.97\% | 22.00\% |
| 35 | 2 |  | 216,207 |  | 63,276 |  | 47,565 | 133\% | 29.27\% | 22.00\% |
| 36 | 2 |  | 224,548 |  | 18,786 |  | 49,401 | 38\% | 8.37\% | 22.00\% |
| 37 | 5 |  | 641,410 |  | 178,951 |  | 141,110 | 127\% | 27.90\% | 22.00\% |
| 38 | 2 |  | 217,454 |  | 11,480 |  | 47,840 | 24\% | 5.28\% | 22.00\% |
| 39 | 3 |  | 369,976 |  | 76,347 |  | 81,395 | 94\% | 20.64\% | 22.00\% |
| 40 | 0 |  | - |  | - |  | - |  | 0.00\% | 22.00\% |
| 41 | 1 |  | 122,291 |  | 21,366 |  | 26,904 | 79\% | 17.47\% | 22.00\% |
| 42 | 1 |  | 132,173 |  | 40,643 |  | 29,078 | 140\% | 30.75\% | 22.00\% |
| 43 | 1 |  | 109,734 |  | 27,279 |  | 24,141 | 113\% | 24.86\% | 22.00\% |
| 44 | 1 |  | 127,836 |  | 20,936 |  | 28,124 | 74\% | 16.38\% | 22.00\% |
| 45 | 0 |  | - |  | - |  | - |  | 0.00\% | 22.00\% |
| Total | 3,956 |  | 403,061,010 |  | 85,141,598 |  | 88,673,422 | 96\% | 21.12\% | 22.00\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND OVERTIME PAY EXPERIENCE BEFORE DISABLED RETIREMENT MEN AND WOMEN

TABLE 10C

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 1 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 2 | 2 | \$ | 175,051 | \$ | 4,736 | \$ | 26,258 | 18\% | 2.71\% | 15.00\% |
| 3 | 2 |  | 95,750 |  | 3,917 |  | 14,363 | 27\% | 4.09\% | 15.00\% |
| 4 | 5 |  | 279,601 |  | 23,820 |  | 41,940 | 57\% | 8.52\% | 15.00\% |
| 5 | 14 |  | 944,148 |  | 67,612 |  | 141,622 | 48\% | 7.16\% | 15.00\% |
| 6 | 27 |  | 2,209,441 |  | 128,667 |  | 331,416 | 39\% | 5.82\% | 15.00\% |
| 7 | 34 |  | 2,902,966 |  | 149,589 |  | 435,445 | 34\% | 5.15\% | 15.00\% |
| 8 | 39 |  | 3,370,303 |  | 174,068 |  | 505,545 | 34\% | 5.16\% | 15.00\% |
| 9 | 34 |  | 2,942,480 |  | 216,284 |  | 441,372 | 49\% | 7.35\% | 15.00\% |
| 10 | 42 |  | 3,586,520 |  | 231,992 |  | 537,978 | 43\% | 6.47\% | 15.00\% |
| 11 | 43 |  | 3,818,594 |  | 360,561 |  | 572,789 | 63\% | 9.44\% | 15.00\% |
| 12 | 44 |  | 3,924,573 |  | 299,824 |  | 588,686 | 51\% | 7.64\% | 15.00\% |
| 13 | 35 |  | 3,080,185 |  | 350,592 |  | 462,028 | 76\% | 11.38\% | 15.00\% |
| 14 | 42 |  | 3,758,138 |  | 307,935 |  | 563,721 | 55\% | 8.19\% | 15.00\% |
| 15 | 58 |  | 5,502,071 |  | 473,748 |  | 825,311 | 57\% | 8.61\% | 15.00\% |
| 16 | 77 |  | 7,183,773 |  | 722,264 |  | 1,077,566 | 67\% | 10.05\% | 15.00\% |
| 17 | 74 |  | 7,170,463 |  | 739,918 |  | 1,075,570 | 69\% | 10.32\% | 15.00\% |
| 18 | 68 |  | 6,574,839 |  | 886,978 |  | 986,226 | 90\% | 13.49\% | 15.00\% |
| 19 | 106 |  | 10,505,968 |  | 1,299,591 |  | 1,575,895 | 82\% | 12.37\% | 15.00\% |
| 20 | 83 |  | 8,549,852 |  | 1,367,394 |  | 1,282,478 | 107\% | 15.99\% | 15.00\% |
| 21 | 32 |  | 3,372,563 |  | 493,689 |  | 505,884 | 98\% | 14.64\% | 15.00\% |
| 22 | 22 |  | 2,346,157 |  | 338,578 |  | 351,923 | 96\% | 14.43\% | 15.00\% |
| 23 | 17 |  | 1,899,556 |  | 374,591 |  | 265,938 | 141\% | 19.72\% | 14.00\% |
| 24 | 14 |  | 1,514,085 |  | 185,030 |  | 196,831 | 94\% | 12.22\% | 13.00\% |
| 25 | 18 |  | 2,146,299 |  | 397,255 |  | 257,556 | 154\% | 18.51\% | 12.00\% |
| 26 | 7 |  | 812,022 |  | 160,454 |  | 89,322 | 180\% | 19.76\% | 11.00\% |
| 27 | 7 |  | 770,643 |  | 168,399 |  | 77,064 | 219\% | 21.85\% | 10.00\% |
| 28 | 0 |  | - |  | - |  | - |  |  | 9.00\% |
| 29 | 1 |  | 131,302 |  | 17,291 |  | 10,504 | 165\% | 13.17\% | 8.00\% |
| 30 | 1 |  | 111,388 |  | 10,812 |  | 7,797 | 139\% | 9.71\% | 7.00\% |
| 31 | 1 |  | 136,481 |  | 24,083 |  | 8,189 | 294\% | 17.65\% | 6.00\% |
| 32 | 0 |  | - |  | - |  | - |  |  | 6.00\% |
| 33 | 0 |  | - |  | - |  | - |  |  | 6.00\% |
| 34 | 0 |  | - |  | - |  | - |  |  | 6.00\% |
| 35 | 1 |  | 81,817 |  | 16,645 |  | 4,909 | $339 \%$ | 20.34\% | 6.00\% |
| 36 | 0 |  | - |  | - |  | - |  |  | 6.00\% |
| 37 | 0 |  | - |  | - |  | - |  |  | 6.00\% |
| 38 | 0 |  | - |  | - |  | - |  |  | 6.00\% |
| 39 | 0 |  | - |  | - |  | - |  |  | 6.00\% |
| 40 | 0 |  | - |  | - |  | - |  |  | 6.00\% |
| 41 | 0 |  | - |  | - |  | - |  |  | 6.00\% |
| 42 | 1 |  | 130,884 |  | 33,699 |  | 7,853 | 429\% | 25.75\% | 6.00\% |
| 43 | 0 |  | - |  | - |  | - |  |  | 6.00\% |
| 44 | 1 |  | 113,890 |  | 409 |  | 6,833 | 6\% | 0.36\% | 6.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 6.00\% |
| Total | 952 |  | 90,141,802 |  | 10,030,425 |  | 13,276,813 | 76\% | 11.13\% | 14.73\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND OVERTIME PAY EXPERIENCE BEFORE DISABLED RETIREMENT MEN AND WOMEN

TABLE 10C

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  |  | 16.00\% |
| 1 | 0 |  | - |  | - |  | - |  |  | 16.00\% |
| 2 | 2 | \$ | 175,051 | \$ | 4,736 | \$ | 28,008 | 17\% | 2.71\% | 16.00\% |
| 3 | 2 |  | 95,750 |  | 3,917 |  | 15,320 | 26\% | 4.09\% | 16.00\% |
| 4 | 5 |  | 279,601 |  | 23,820 |  | 44,736 | 53\% | 8.52\% | 16.00\% |
| 5 | 14 |  | 944,148 |  | 67,612 |  | 151,064 | 45\% | 7.16\% | 16.00\% |
| 6 | 27 |  | 2,209,441 |  | 128,667 |  | 353,511 | 36\% | 5.82\% | 16.00\% |
| 7 | 34 |  | 2,902,966 |  | 149,589 |  | 464,475 | 32\% | 5.15\% | 16.00\% |
| 8 | 39 |  | 3,370,303 |  | 174,068 |  | 539,248 | 32\% | 5.16\% | 16.00\% |
| 9 | 34 |  | 2,942,480 |  | 216,284 |  | 470,797 | 46\% | 7.35\% | 16.00\% |
| 10 | 42 |  | 3,586,520 |  | 231,992 |  | 573,843 | 40\% | 6.47\% | 16.00\% |
| 11 | 43 |  | 3,818,594 |  | 360,561 |  | 610,975 | 59\% | 9.44\% | 16.00\% |
| 12 | 44 |  | 3,924,573 |  | 299,824 |  | 627,932 | 48\% | 7.64\% | 16.00\% |
| 13 | 35 |  | 3,080,185 |  | 350,592 |  | 492,830 | 71\% | 11.38\% | 16.00\% |
| 14 | 42 |  | 3,758,138 |  | 307,935 |  | 601,302 | 51\% | 8.19\% | 16.00\% |
| 15 | 58 |  | 5,502,071 |  | 473,748 |  | 880,331 | 54\% | 8.61\% | 16.00\% |
| 16 | 77 |  | 7,183,773 |  | 722,264 |  | 1,149,404 | 63\% | 10.05\% | 16.00\% |
| 17 | 74 |  | 7,170,463 |  | 739,918 |  | 1,147,274 | 64\% | 10.32\% | 16.00\% |
| 18 | 68 |  | 6,574,839 |  | 886,978 |  | 1,051,974 | 84\% | 13.49\% | 16.00\% |
| 19 | 106 |  | 10,505,968 |  | 1,299,591 |  | 1,680,955 | 77\% | 12.37\% | 16.00\% |
| 20 | 83 |  | 8,549,852 |  | 1,367,394 |  | 1,367,976 | 100\% | 15.99\% | 16.00\% |
| 21 | 32 |  | 3,372,563 |  | 493,689 |  | 539,610 | 91\% | 14.64\% | 16.00\% |
| 22 | 22 |  | 2,346,157 |  | 338,578 |  | 375,385 | 90\% | 14.43\% | 16.00\% |
| 23 | 17 |  | 1,899,556 |  | 374,591 |  | 303,929 | 123\% | 19.72\% | 16.00\% |
| 24 | 14 |  | 1,514,085 |  | 185,030 |  | 242,254 | 76\% | 12.22\% | 16.00\% |
| 25 | 18 |  | 2,146,299 |  | 397,255 |  | 343,408 | 116\% | 18.51\% | 16.00\% |
| 26 | 7 |  | 812,022 |  | 160,454 |  | 129,923 | 123\% | 19.76\% | 16.00\% |
| 27 | 7 |  | 770,643 |  | 168,399 |  | 123,303 | 137\% | 21.85\% | 16.00\% |
| 28 | 0 |  | - |  | - |  | - |  |  | 16.00\% |
| 29 | 1 |  | 131,302 |  | 17,291 |  | 21,008 | 82\% | 13.17\% | 16.00\% |
| 30 | 1 |  | 111,388 |  | 10,812 |  | 17,822 | 61\% | 9.71\% | 16.00\% |
| 31 | 1 |  | 136,481 |  | 24,083 |  | 21,837 | 110\% | 17.65\% | 16.00\% |
| 32 | 0 |  | - |  | - |  | - |  |  | 16.00\% |
| 33 | 0 |  | - |  | - |  | - |  |  | 16.00\% |
| 34 | 0 |  | - |  | - |  | - |  |  | 16.00\% |
| 35 | 1 |  | 81,817 |  | 16,645 |  | 13,091 | 127\% | 20.34\% | 16.00\% |
| 36 | 0 |  | - |  | - |  | - |  |  | 16.00\% |
| 37 | 0 |  | - |  | - |  | - |  |  | 16.00\% |
| 38 | 0 |  | - |  | - |  | - |  |  | 16.00\% |
| 39 | 0 |  | - |  | - |  | - |  |  | 16.00\% |
| 40 | 0 |  | - |  | - |  | - |  |  | 16.00\% |
| 41 | 0 |  | - |  | - |  | - |  |  | 16.00\% |
| 42 | 1 |  | 130,884 |  | 33,699 |  | 20,941 | 161\% | 25.75\% | 16.00\% |
| 43 | 0 |  | - |  | - |  | - |  |  | 16.00\% |
| 44 | 1 |  | 113,890 |  | 409 |  | 18,222 | 2\% | 0.36\% | 16.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 16.00\% |
| Total | 952 |  | 90,141,802 |  | 10,030,425 |  | 14,422,688 | 70\% | 11.13\% | 16.00\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND OVERTIME PAY EXPERIENCE FOR ALL YEARS MEN AND WOMEN

TABLE 10A
10-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 4,353 | \$ | 153,833,623 | \$ | 4,368,426 | \$ | 23,075,044 | 19\% | 2.84\% | 15.00\% |
| 1 | 17,517 |  | 680,907,229 |  | 51,255,908 |  | 102,136,084 | 50\% | 7.53\% | 15.00\% |
| 2 | 17,151 |  | 731,041,066 |  | 94,481,977 |  | 109,656,160 | 86\% | 12.92\% | 15.00\% |
| 3 | 17,941 |  | 834,668,347 |  | 118,105,356 |  | 125,200,252 | 94\% | 14.15\% | 15.00\% |
| 4 | 17,611 |  | 905,926,550 |  | 132,425,299 |  | 135,888,983 | 97\% | 14.62\% | 15.00\% |
| 5 | 17,137 |  | 988,745,291 |  | 147,110,214 |  | 148,311,794 | 99\% | 14.88\% | 15.00\% |
| 6 | 16,027 |  | 1,153,727,380 |  | 179,616,733 |  | 173,059,107 | 104\% | 15.57\% | 15.00\% |
| 7 | 15,013 |  | 1,106,966,037 |  | 176,822,796 |  | 166,044,905 | 106\% | 15.97\% | 15.00\% |
| 8 | 14,155 |  | 1,034,079,335 |  | 168,278,847 |  | 155,111,900 | 108\% | 16.27\% | 15.00\% |
| 9 | 13,416 |  | 976,597,230 |  | 159,496,881 |  | 146,489,585 | 109\% | 16.33\% | 15.00\% |
| 10 | 13,929 |  | 1,022,801,430 |  | 168,926,281 |  | 153,420,214 | 110\% | 16.52\% | 15.00\% |
| 11 | 14,481 |  | 1,071,628,581 |  | 178,980,571 |  | 160,744,287 | 111\% | 16.70\% | 15.00\% |
| 12 | 14,101 |  | 1,064,044,175 |  | 181,847,388 |  | 159,606,626 | 114\% | 17.09\% | 15.00\% |
| 13 | 14,662 |  | 1,107,081,022 |  | 193,578,448 |  | 166,062,153 | 117\% | 17.49\% | 15.00\% |
| 14 | 14,152 |  | 1,094,357,042 |  | 195,391,739 |  | 164,153,556 | 119\% | 17.85\% | 15.00\% |
| 15 | 13,522 |  | 1,066,103,852 |  | 197,040,906 |  | 159,915,578 | 123\% | 18.48\% | 15.00\% |
| 16 | 13,940 |  | 1,120,021,505 |  | 212,287,297 |  | 168,003,226 | 126\% | 18.95\% | 15.00\% |
| 17 | 14,968 |  | 1,213,540,219 |  | 237,947,478 |  | 182,031,033 | 131\% | 19.61\% | 15.00\% |
| 18 | 15,269 |  | 1,250,195,105 |  | 259,007,773 |  | 187,529,266 | 138\% | 20.72\% | 15.00\% |
| 19 | 10,025 |  | 864,582,833 |  | 192,561,264 |  | 129,687,425 | 148\% | 22.27\% | 15.00\% |
| 20 | 5,747 |  | 521,113,075 |  | 114,978,756 |  | 78,166,961 | 147\% | 22.06\% | 15.00\% |
| 21 | 4,279 |  | 393,488,540 |  | 87,265,342 |  | 59,023,281 | 148\% | 22.18\% | 15.00\% |
| 22 | 3,407 |  | 313,737,533 |  | 70,357,492 |  | 47,060,630 | 150\% | 22.43\% | 15.00\% |
| 23 | 2,591 |  | 244,273,386 |  | 54,011,946 |  | 34,198,274 | 158\% | 22.11\% | 14.00\% |
| 24 | 2,071 |  | 203,692,183 |  | 44,292,855 |  | 26,479,984 | 167\% | 21.74\% | 13.00\% |
| 25 | 1,558 |  | 160,664,657 |  | 34,928,906 |  | 19,279,759 | 181\% | 21.74\% | 12.00\% |
| 26 | 1,162 |  | 123,764,777 |  | 26,533,200 |  | 13,614,125 | 195\% | 21.44\% | 11.00\% |
| 27 | 786 |  | 86,228,070 |  | 18,005,920 |  | 8,622,807 | 209\% | 20.88\% | 10.00\% |
| 28 | 542 |  | 61,022,761 |  | 12,238,808 |  | 5,492,049 | 223\% | 20.06\% | 9.00\% |
| 29 | 364 |  | 41,743,495 |  | 8,117,039 |  | 3,339,480 | 243\% | 19.45\% | 8.00\% |
| 30 | 255 |  | 28,521,739 |  | 5,297,787 |  | 1,996,522 | 265\% | 18.57\% | 7.00\% |
| 31 | 170 |  | 19,387,504 |  | 3,417,385 |  | 1,163,250 | 294\% | 17.63\% | 6.00\% |
| 32 | 90 |  | 9,662,941 |  | 1,583,366 |  | 579,776 | 273\% | 16.39\% | 6.00\% |
| 33 | 65 |  | 6,746,326 |  | 1,223,878 |  | 404,780 | 302\% | 18.14\% | 6.00\% |
| 34 | 59 |  | 5,719,852 |  | 932,039 |  | 343,191 | 272\% | 16.29\% | 6.00\% |
| 35 | 58 |  | 5,435,738 |  | 998,950 |  | 326,144 | 306\% | 18.38\% | 6.00\% |
| 36 | 55 |  | 5,424,924 |  | 980,359 |  | 325,495 | 301\% | 18.07\% | 6.00\% |
| 37 | 54 |  | 5,476,371 |  | 966,623 |  | 328,582 | 294\% | 17.65\% | 6.00\% |
| 38 | 46 |  | 4,691,929 |  | 790,874 |  | 281,516 | 281\% | 16.86\% | 6.00\% |
| 39 | 23 |  | 2,435,876 |  | 457,429 |  | 146,153 | 313\% | 18.78\% | 6.00\% |
| 40 | 12 |  | 1,268,701 |  | 230,095 |  | 76,122 | 302\% | 18.14\% | 6.00\% |
| 41 | 5 |  | 581,398 |  | 104,984 |  | 34,884 | 301\% | 18.06\% | 6.00\% |
| 42 | 3 |  | 342,892 |  | 38,364 |  | 20,574 | 186\% | 11.19\% | 6.00\% |
| 43 | 1 |  | 107,109 |  | 1,245 |  | 6,427 | 19\% | 1.16\% | 6.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 6.00\% |
| 45 | 0 |  |  |  | - |  | - |  |  | 6.00\% |
| Total | 312,773 |  | 21,686,379,630 |  | 3,737,285,224 |  | 3,217,437,943 | 116\% | 17.23\% | 14.84\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND OVERTIME PAY EXPERIENCE FOR ALL YEARS MEN AND WOMEN

TABLE 10A

| Service | Life Years Exposed | Salary during the Year | Actual Overtime |  | Proposed Overtime |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Actual \% | Proposed \% |  |
| (1) | (2) | (3) |  | (4) |  |  |  | (5) | (6) | (7) | (8) |
| 0 | 4,353 | 153,833,623 | \$ | 4,368,426 | \$ | 24,613,380 | 18\% | 2.84\% | 16.00\% |
| 1 | 17,517 | 680,907,229 |  | 51,255,908 |  | 108,945,157 | 47\% | 7.53\% | 16.00\% |
| 2 | 17,151 | 731,041,066 |  | 94,481,977 |  | 116,966,571 | 81\% | 12.92\% | 16.00\% |
| 3 | 17,941 | 834,668,347 |  | 118,105,356 |  | 133,546,936 | 88\% | 14.15\% | 16.00\% |
| 4 | 17,611 | 905,926,550 |  | 132,425,299 |  | 144,948,248 | 91\% | 14.62\% | 16.00\% |
| 5 | 17,137 | 988,745,291 |  | 147,110,214 |  | 158,199,247 | 93\% | 14.88\% | 16.00\% |
| 6 | 16,027 | 1,153,727,380 |  | 179,616,733 |  | 184,596,381 | 97\% | 15.57\% | 16.00\% |
| 7 | 15,013 | 1,106,966,037 |  | 176,822,796 |  | 177,114,566 | 100\% | 15.97\% | 16.00\% |
| 8 | 14,155 | 1,034,079,335 |  | 168,278,847 |  | 165,452,694 | 102\% | 16.27\% | 16.00\% |
| 9 | 13,416 | 976,597,230 |  | 159,496,881 |  | 156,255,557 | 102\% | 16.33\% | 16.00\% |
| 10 | 13,929 | 1,022,801,430 |  | 168,926,281 |  | 163,648,229 | 103\% | 16.52\% | 16.00\% |
| 11 | 14,481 | 1,071,628,581 |  | 178,980,571 |  | 171,460,573 | 104\% | 16.70\% | 16.00\% |
| 12 | 14,101 | 1,064,044,175 |  | 181,847,388 |  | 170,247,068 | 107\% | 17.09\% | 16.00\% |
| 13 | 14,662 | 1,107,081,022 |  | 193,578,448 |  | 177,132,963 | 109\% | 17.49\% | 16.00\% |
| 14 | 14,152 | 1,094,357,042 |  | 195,391,739 |  | 175,097,127 | 112\% | 17.85\% | 16.00\% |
| 15 | 13,522 | 1,066,103,852 |  | 197,040,906 |  | 170,576,616 | 116\% | 18.48\% | 16.00\% |
| 16 | 13,940 | 1,120,021,505 |  | 212,287,297 |  | 179,203,441 | 118\% | 18.95\% | 16.00\% |
| 17 | 14,968 | 1,213,540,219 |  | 237,947,478 |  | 194,166,435 | 123\% | 19.61\% | 16.00\% |
| 18 | 15,269 | 1,250,195,105 |  | 259,007,773 |  | 200,031,217 | 129\% | 20.72\% | 16.00\% |
| 19 | 10,025 | 864,582,833 |  | 192,561,264 |  | 138,333,253 | 139\% | 22.27\% | 16.00\% |
| 20 | 5,747 | 521,113,075 |  | 114,978,756 |  | 83,378,092 | 138\% | 22.06\% | 16.00\% |
| 21 | 4,279 | 393,488,540 |  | 87,265,342 |  | 62,958,166 | 139\% | 22.18\% | 16.00\% |
| 22 | 3,407 | 313,737,533 |  | 70,357,492 |  | 50,198,005 | 140\% | 22.43\% | 16.00\% |
| 23 | 2,591 | 244,273,386 |  | 54,011,946 |  | 39,083,742 | 138\% | 22.11\% | 16.00\% |
| 24 | 2,071 | 203,692,183 |  | 44,292,855 |  | 32,590,749 | 136\% | 21.74\% | 16.00\% |
| 25 | 1,558 | 160,664,657 |  | 34,928,906 |  | 25,706,345 | 136\% | 21.74\% | 16.00\% |
| 26 | 1,162 | 123,764,777 |  | 26,533,200 |  | 19,802,364 | 134\% | 21.44\% | 16.00\% |
| 27 | 786 | 86,228,070 |  | 18,005,920 |  | 13,796,491 | 131\% | 20.88\% | 16.00\% |
| 28 | 542 | 61,022,761 |  | 12,238,808 |  | 9,763,642 | 125\% | 20.06\% | 16.00\% |
| 29 | 364 | 41,743,495 |  | 8,117,039 |  | 6,678,959 | 122\% | 19.45\% | 16.00\% |
| 30 | 255 | 28,521,739 |  | 5,297,787 |  | 4,563,478 | 116\% | 18.57\% | 16.00\% |
| 31 | 170 | 19,387,504 |  | 3,417,385 |  | 3,102,001 | 110\% | 17.63\% | 16.00\% |
| 32 | 90 | 9,662,941 |  | 1,583,366 |  | 1,546,070 | 102\% | 16.39\% | 16.00\% |
| 33 | 65 | 6,746,326 |  | 1,223,878 |  | 1,079,412 | 113\% | 18.14\% | 16.00\% |
| 34 | 59 | 5,719,852 |  | 932,039 |  | 915,176 | 102\% | 16.29\% | 16.00\% |
| 35 | 58 | 5,435,738 |  | 998,950 |  | 869,718 | 115\% | 18.38\% | 16.00\% |
| 36 | 55 | 5,424,924 |  | 980,359 |  | 867,988 | 113\% | 18.07\% | 16.00\% |
| 37 | 54 | 5,476,371 |  | 966,623 |  | 876,219 | 110\% | 17.65\% | 16.00\% |
| 38 | 46 | 4,691,929 |  | 790,874 |  | 750,709 | 105\% | 16.86\% | 16.00\% |
| 39 | 23 | 2,435,876 |  | 457,429 |  | 389,740 | 117\% | 18.78\% | 16.00\% |
| 40 | 12 | 1,268,701 |  | 230,095 |  | 202,992 | 113\% | 18.14\% | 16.00\% |
| 41 | 5 | 581,398 |  | 104,984 |  | 93,024 | 113\% | 18.06\% | 16.00\% |
| 42 | 3 | 342,892 |  | 38,364 |  | 54,863 | 70\% | 11.19\% | 16.00\% |
| 43 | 1 | 107,109 |  | 1,245 |  | 17,138 | 7\% | 1.16\% | 16.00\% |
| 44 | 0 | 0 |  | - |  | - |  |  | 16.00\% |
| 45 | 0 | 0 |  | - |  | - |  |  | 16.00\% |
| Total | 312,773 | 21,686,379,630 |  | 3,737,285,224 |  | 3,469,820,741 | 108\% | 17.23\% | 16.00\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND OVERTIME PAY EXPERIENCE BEFORE SERVICE RETIREMENT MEN AND WOMEN

TABLE 10B
10-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 1 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 2 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 3 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 4 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 5 | 1 | \$ | 60,788 | \$ | 23,422 | \$ | 9,118 | 257\% | 38.53\% | 15.00\% |
| 6 | 1 |  | 67,020 |  | 16,650 |  | 10,053 | 166\% | 24.84\% | 15.00\% |
| 7 | 2 |  | 127,295 |  | 43,759 |  | 19,094 | 229\% | 34.38\% | 15.00\% |
| 8 | 2 |  | 128,228 |  | 16,570 |  | 19,234 | 86\% | 12.92\% | 15.00\% |
| 9 | 2 |  | 198,856 |  | 49,455 |  | 29,828 | 166\% | 24.87\% | 15.00\% |
| 10 | 3 |  | 192,897 |  | 32,939 |  | 28,935 | 114\% | 17.08\% | 15.00\% |
| 11 | 4 |  | 259,475 |  | 61,364 |  | 38,921 | 158\% | 23.65\% | 15.00\% |
| 12 | 5 |  | 352,992 |  | 75,623 |  | 52,949 | 143\% | 21.42\% | 15.00\% |
| 13 | 9 |  | 624,049 |  | 142,220 |  | 93,607 | 152\% | 22.79\% | 15.00\% |
| 14 | 17 |  | 1,326,411 |  | 328,967 |  | 198,962 | 165\% | 24.80\% | 15.00\% |
| 15 | 7 |  | 469,230 |  | 116,051 |  | 70,384 | 165\% | 24.73\% | 15.00\% |
| 16 | 70 |  | 5,463,610 |  | 1,238,063 |  | 819,541 | 151\% | 22.66\% | 15.00\% |
| 17 | 113 |  | 8,638,130 |  | 2,096,593 |  | 1,295,719 | 162\% | 24.27\% | 15.00\% |
| 18 | 168 |  | 12,040,591 |  | 2,533,087 |  | 1,806,089 | 140\% | 21.04\% | 15.00\% |
| 19 | 5,353 |  | 399,627,043 |  | 93,040,993 |  | 59,944,057 | 155\% | 23.28\% | 15.00\% |
| 20 | 3,133 |  | 257,879,623 |  | 68,900,850 |  | 38,681,943 | 178\% | 26.72\% | 15.00\% |
| 21 | 802 |  | 72,588,980 |  | 16,488,215 |  | 10,888,347 | 151\% | 22.71\% | 15.00\% |
| 22 | 411 |  | 37,426,430 |  | 8,551,185 |  | 5,613,965 | 152\% | 22.85\% | 15.00\% |
| 23 | 269 |  | 26,289,341 |  | 6,368,722 |  | 3,680,508 | 173\% | 24.23\% | 14.00\% |
| 24 | 241 |  | 24,413,423 |  | 5,689,538 |  | 3,173,745 | 179\% | 23.30\% | 13.00\% |
| 25 | 307 |  | 31,754,059 |  | 6,681,364 |  | 3,810,487 | 175\% | 21.04\% | 12.00\% |
| 26 | 163 |  | 17,860,283 |  | 3,561,437 |  | 1,964,631 | 181\% | 19.94\% | 11.00\% |
| 27 | 102 |  | 11,608,794 |  | 2,370,393 |  | 1,160,879 | 204\% | 20.42\% | 10.00\% |
| 28 | 59 |  | 6,747,404 |  | 1,585,510 |  | 607,266 | 261\% | 23.50\% | 9.00\% |
| 29 | 65 |  | 7,568,348 |  | 1,562,161 |  | 605,468 | 258\% | 20.64\% | 8.00\% |
| 30 | 45 |  | 5,102,048 |  | 1,054,187 |  | 357,143 | 295\% | 20.66\% | 7.00\% |
| 31 | 16 |  | 1,863,235 |  | 371,772 |  | 111,794 | 333\% | 19.95\% | 6.00\% |
| 32 | 13 |  | 1,396,230 |  | 220,829 |  | 83,774 | 264\% | 15.82\% | 6.00\% |
| 33 | 8 |  | 762,387 |  | 172,023 |  | 45,743 | 376\% | 22.56\% | 6.00\% |
| 34 | 11 |  | 1,158,075 |  | 225,863 |  | 69,484 | 325\% | 19.50\% | 6.00\% |
| 35 | 10 |  | 954,280 |  | 190,621 |  | 57,257 | 333\% | 19.98\% | 6.00\% |
| 36 | 8 |  | 706,242 |  | 62,028 |  | 42,374 | 146\% | 8.78\% | 6.00\% |
| 37 | 15 |  | 1,533,795 |  | 318,967 |  | 92,028 | 347\% | 20.80\% | 6.00\% |
| 38 | 13 |  | 1,285,724 |  | 190,085 |  | 77,143 | 246\% | 14.78\% | 6.00\% |
| 39 | 15 |  | 1,497,594 |  | 273,120 |  | 89,856 | 304\% | 18.24\% | 6.00\% |
| 40 | 6 |  | 593,790 |  | 111,436 |  | 35,627 | 313\% | 18.77\% | 6.00\% |
| 41 | 7 |  | 666,400 |  | 109,781 |  | 39,984 | 275\% | 16.47\% | 6.00\% |
| 42 | 1 |  | 132,173 |  | 40,643 |  | 7,930 | 512\% | 30.75\% | 6.00\% |
| 43 | 1 |  | 109,734 |  | 27,279 |  | 6,584 | 414\% | 24.86\% | 6.00\% |
| 44 | 1 |  | 127,836 |  | 20,936 |  | 7,670 | 273\% | 16.38\% | 6.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 6.00\% |
| Total | 11,479 |  | 941,602,840 |  | 224,964,701 |  | 135,748,124 | 166\% | 23.89\% | 14.42\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND OVERTIME PAY EXPERIENCE BEFORE SERVICE RETIREMENT MEN AND WOMEN

TABLE 10B

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual / Proposed (6) | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  |  | (5) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  |  | 22.00\% |
| 1 | 0 |  | - |  | - |  | - |  |  | 22.00\% |
| 2 | 0 |  | - |  | - |  | - |  |  | 22.00\% |
| 3 | 0 |  | - |  | - |  | - |  |  | 22.00\% |
| 4 | 0 |  | - |  | - |  | - |  |  | 22.00\% |
| 5 | 1 | \$ | 60,788 | \$ | 23,422 | \$ | 13,373 | 175\% | 38.53\% | 22.00\% |
| 6 | 1 |  | 67,020 |  | 16,650 |  | 14,744 | 113\% | 24.84\% | 22.00\% |
| 7 | 2 |  | 127,295 |  | 43,759 |  | 28,005 | 156\% | 34.38\% | 22.00\% |
| 8 | 2 |  | 128,228 |  | 16,570 |  | 28,210 | 59\% | 12.92\% | 22.00\% |
| 9 | 2 |  | 198,856 |  | 49,455 |  | 43,748 | 113\% | 24.87\% | 22.00\% |
| 10 | 3 |  | 192,897 |  | 32,939 |  | 42,437 | 78\% | 17.08\% | 22.00\% |
| 11 | 4 |  | 259,475 |  | 61,364 |  | 57,084 | 107\% | 23.65\% | 22.00\% |
| 12 | 5 |  | 352,992 |  | 75,623 |  | 77,658 | 97\% | 21.42\% | 22.00\% |
| 13 | 9 |  | 624,049 |  | 142,220 |  | 137,291 | 104\% | 22.79\% | 22.00\% |
| 14 | 17 |  | 1,326,411 |  | 328,967 |  | 291,810 | 113\% | 24.80\% | 22.00\% |
| 15 | 7 |  | 469,230 |  | 116,051 |  | 103,231 | 112\% | 24.73\% | 22.00\% |
| 16 | 70 |  | 5,463,610 |  | 1,238,063 |  | 1,201,994 | 103\% | 22.66\% | 22.00\% |
| 17 | 113 |  | 8,638,130 |  | 2,096,593 |  | 1,900,389 | 110\% | 24.27\% | 22.00\% |
| 18 | 168 |  | 12,040,591 |  | 2,533,087 |  | 2,648,930 | 96\% | 21.04\% | 22.00\% |
| 19 | 5,353 |  | 399,627,043 |  | 93,040,993 |  | 87,917,950 | 106\% | 23.28\% | 22.00\% |
| 20 | 3,133 |  | 257,879,623 |  | 68,900,850 |  | 56,733,517 | 121\% | 26.72\% | 22.00\% |
| 21 | 802 |  | 72,588,980 |  | 16,488,215 |  | 15,969,576 | 103\% | 22.71\% | 22.00\% |
| 22 | 411 |  | 37,426,430 |  | 8,551,185 |  | 8,233,815 | 104\% | 22.85\% | 22.00\% |
| 23 | 269 |  | 26,289,341 |  | 6,368,722 |  | 5,783,655 | 110\% | 24.23\% | 22.00\% |
| 24 | 241 |  | 24,413,423 |  | 5,689,538 |  | 5,370,953 | 106\% | 23.30\% | 22.00\% |
| 25 | 307 |  | 31,754,059 |  | 6,681,364 |  | 6,985,893 | 96\% | 21.04\% | 22.00\% |
| 26 | 163 |  | 17,860,283 |  | 3,561,437 |  | 3,929,262 | 91\% | 19.94\% | 22.00\% |
| 27 | 102 |  | 11,608,794 |  | 2,370,393 |  | 2,553,935 | 93\% | 20.42\% | 22.00\% |
| 28 | 59 |  | 6,747,404 |  | 1,585,510 |  | 1,484,429 | 107\% | 23.50\% | 22.00\% |
| 29 | 65 |  | 7,568,348 |  | 1,562,161 |  | 1,665,037 | 94\% | 20.64\% | 22.00\% |
| 30 | 45 |  | 5,102,048 |  | 1,054,187 |  | 1,122,450 | 94\% | 20.66\% | 22.00\% |
| 31 | 16 |  | 1,863,235 |  | 371,772 |  | 409,912 | 91\% | 19.95\% | 22.00\% |
| 32 | 13 |  | 1,396,230 |  | 220,829 |  | 307,171 | 72\% | 15.82\% | 22.00\% |
| 33 | 8 |  | 762,387 |  | 172,023 |  | 167,725 | 103\% | 22.56\% | 22.00\% |
| 34 | 11 |  | 1,158,075 |  | 225,863 |  | 254,776 | 89\% | 19.50\% | 22.00\% |
| 35 | 10 |  | 954,280 |  | 190,621 |  | 209,942 | 91\% | 19.98\% | 22.00\% |
| 36 | 8 |  | 706,242 |  | 62,028 |  | 155,373 | 40\% | 8.78\% | 22.00\% |
| 37 | 15 |  | 1,533,795 |  | 318,967 |  | 337,435 | 95\% | 20.80\% | 22.00\% |
| 38 | 13 |  | 1,285,724 |  | 190,085 |  | 282,859 | 67\% | 14.78\% | 22.00\% |
| 39 | 15 |  | 1,497,594 |  | 273,120 |  | 329,471 | 83\% | 18.24\% | 22.00\% |
| 40 | 6 |  | 593,790 |  | 111,436 |  | 130,634 | 85\% | 18.77\% | 22.00\% |
| 41 | 7 |  | 666,400 |  | 109,781 |  | 146,608 | 75\% | 16.47\% | 22.00\% |
| 42 | 1 |  | 132,173 |  | 40,643 |  | 29,078 | 140\% | 30.75\% | 22.00\% |
| 43 | 1 |  | 109,734 |  | 27,279 |  | 24,141 | 113\% | 24.86\% | 22.00\% |
| 44 | 1 |  | 127,836 |  | 20,936 |  | 28,124 | 74\% | 16.38\% | 22.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 22.00\% |
| Total | 11,479 |  | 941,602,840 |  | 224,964,701 |  | 207,152,625 | 109\% | 23.89\% | 22.00\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND OVERTIME PAY EXPERIENCE BEFORE DISABLED RETIREMENT MEN AND WOMEN

TABLE 10C

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 1 | \$ | 35,978 | \$ | 256 | \$ | 5,397 | 5\% | 0.71\% | 15.00\% |
| 1 | 1 |  | 41,004 |  | 273 |  | 6,151 | 4\% | 0.67\% | 15.00\% |
| 2 | 6 |  | 341,137 |  | 12,436 |  | 51,170 | 24\% | 3.65\% | 15.00\% |
| 3 | 14 |  | 627,214 |  | 40,719 |  | 94,082 | 43\% | 6.49\% | 15.00\% |
| 4 | 13 |  | 654,293 |  | 48,757 |  | 98,144 | 50\% | 7.45\% | 15.00\% |
| 5 | 34 |  | 1,972,910 |  | 147,296 |  | 295,937 | 50\% | 7.47\% | 15.00\% |
| 6 | 62 |  | 4,464,517 |  | 235,570 |  | 669,678 | 35\% | 5.28\% | 15.00\% |
| 7 | 79 |  | 5,713,290 |  | 344,101 |  | 856,993 | 40\% | 6.02\% | 15.00\% |
| 8 | 93 |  | 6,717,194 |  | 365,373 |  | 1,007,579 | 36\% | 5.44\% | 15.00\% |
| 9 | 113 |  | 7,870,752 |  | 569,319 |  | 1,180,613 | 48\% | 7.23\% | 15.00\% |
| 10 | 169 |  | 11,658,323 |  | 1,042,098 |  | 1,748,749 | 60\% | 8.94\% | 15.00\% |
| 11 | 195 |  | 13,636,103 |  | 1,291,842 |  | 2,045,416 | 63\% | 9.47\% | 15.00\% |
| 12 | 192 |  | 13,703,929 |  | 1,071,332 |  | 2,055,589 | 52\% | 7.82\% | 15.00\% |
| 13 | 202 |  | 14,234,606 |  | 1,143,538 |  | 2,135,191 | 54\% | 8.03\% | 15.00\% |
| 14 | 198 |  | 14,593,703 |  | 1,263,908 |  | 2,189,055 | 58\% | 8.66\% | 15.00\% |
| 15 | 188 |  | 14,733,530 |  | 1,173,088 |  | 2,210,030 | 53\% | 7.96\% | 15.00\% |
| 16 | 185 |  | 14,748,963 |  | 1,578,105 |  | 2,212,344 | 71\% | 10.70\% | 15.00\% |
| 17 | 201 |  | 16,144,423 |  | 1,770,787 |  | 2,421,664 | 73\% | 10.97\% | 15.00\% |
| 18 | 221 |  | 17,073,437 |  | 2,431,301 |  | 2,561,015 | 95\% | 14.24\% | 15.00\% |
| 19 | 325 |  | 25,993,265 |  | 3,967,204 |  | 3,898,990 | 102\% | 15.26\% | 15.00\% |
| 20 | 202 |  | 17,369,961 |  | 3,064,811 |  | 2,605,494 | 118\% | 17.64\% | 15.00\% |
| 21 | 70 |  | 6,424,141 |  | 1,085,501 |  | 963,621 | 113\% | 16.90\% | 15.00\% |
| 22 | 54 |  | 4,955,561 |  | 930,403 |  | 743,334 | 125\% | 18.77\% | 15.00\% |
| 23 | 34 |  | 3,357,882 |  | 684,055 |  | 470,104 | 146\% | 20.37\% | 14.00\% |
| 24 | 31 |  | 3,028,704 |  | 460,144 |  | 393,732 | 117\% | 15.19\% | 13.00\% |
| 25 | 28 |  | 3,063,265 |  | 582,167 |  | 367,592 | 158\% | 19.00\% | 12.00\% |
| 26 | 9 |  | 994,067 |  | 211,648 |  | 109,347 | 194\% | 21.29\% | 11.00\% |
| 27 | 7 |  | 770,643 |  | 168,399 |  | 77,064 | 219\% | 21.85\% | 10.00\% |
| 28 | 2 |  | 199,288 |  | 46,342 |  | 17,936 | 258\% | 23.25\% | 9.00\% |
| 29 | 1 |  | 131,302 |  | 17,291 |  | 10,504 | 165\% | 13.17\% | 8.00\% |
| 30 | 2 |  | 212,758 |  | 48,719 |  | 14,893 | 327\% | 22.90\% | 7.00\% |
| 31 | 4 |  | 372,808 |  | 54,249 |  | 22,369 | 243\% | 14.55\% | 6.00\% |
| 32 | 6 |  | 601,861 |  | 187,500 |  | 36,112 | 519\% | 31.15\% | 6.00\% |
| 33 | 2 |  | 146,699 |  | 915 |  | 8,802 | 10\% | 0.62\% | 6.00\% |
| 34 | 2 |  | 189,048 |  | 1,009 |  | 11,343 | 9\% | 0.53\% | 6.00\% |
| 35 | 6 |  | 567,837 |  | 108,402 |  | 34,070 | 318\% | 19.09\% | 6.00\% |
| 36 | 0 |  | - |  | - |  | - |  |  | 6.00\% |
| 37 | 0 |  | - |  | - |  | - |  |  | 6.00\% |
| 38 | 4 |  | 375,098 |  | 83,552 |  | 22,506 | 371\% | 22.27\% | 6.00\% |
| 39 | 2 |  | 195,514 |  | 41,619 |  | 11,731 | 355\% | 21.29\% | 6.00\% |
| 40 | 2 |  | 214,005 |  | 31,028 |  | 12,840 | 242\% | 14.50\% | 6.00\% |
| 41 | 1 |  | 110,158 |  | 21,785 |  | 6,610 | 330\% | 19.78\% | 6.00\% |
| 42 | 1 |  | 130,884 |  | 33,699 |  | 7,853 | 429\% | 25.75\% | 6.00\% |
| 43 | 0 |  | - |  | - |  | - |  |  | 6.00\% |
| 44 | 1 |  | 113,890 |  | 409 |  | 6,833 | 6\% | 0.36\% | 6.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 6.00\% |
| Total | 2,963 |  | 228,483,947 |  | 26,360,950 |  | 33,698,475 | 78\% | 11.54\% | 14.75\% |

## NEW YORK CITY POLICE DEPARTMENT PENSION FUND OVERTIME PAY EXPERIENCE BEFORE DISABLED RETIREMENT MEN AND WOMEN

TABLE 10C

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 1 | \$ | 35,978 | \$ | 256 | \$ | 5,757 | 4\% | 0.71\% | 16.00\% |
| 1 | 1 |  | 41,004 |  | 273 |  | 6,561 | 4\% | 0.67\% | 16.00\% |
| 2 | 6 |  | 341,137 |  | 12,436 |  | 54,582 | 23\% | 3.65\% | 16.00\% |
| 3 | 14 |  | 627,214 |  | 40,719 |  | 100,354 | 41\% | 6.49\% | 16.00\% |
| 4 | 13 |  | 654,293 |  | 48,757 |  | 104,687 | 47\% | 7.45\% | 16.00\% |
| 5 | 34 |  | 1,972,910 |  | 147,296 |  | 315,666 | 47\% | 7.47\% | 16.00\% |
| 6 | 62 |  | 4,464,517 |  | 235,570 |  | 714,323 | 33\% | 5.28\% | 16.00\% |
| 7 | 79 |  | 5,713,290 |  | 344,101 |  | 914,126 | 38\% | 6.02\% | 16.00\% |
| 8 | 93 |  | 6,717,194 |  | 365,373 |  | 1,074,751 | 34\% | 5.44\% | 16.00\% |
| 9 | 113 |  | 7,870,752 |  | 569,319 |  | 1,259,320 | 45\% | 7.23\% | 16.00\% |
| 10 | 169 |  | 11,658,323 |  | 1,042,098 |  | 1,865,332 | 56\% | 8.94\% | 16.00\% |
| 11 | 195 |  | 13,636,103 |  | 1,291,842 |  | 2,181,777 | 59\% | 9.47\% | 16.00\% |
| 12 | 192 |  | 13,703,929 |  | 1,071,332 |  | 2,192,629 | 49\% | 7.82\% | 16.00\% |
| 13 | 202 |  | 14,234,606 |  | 1,143,538 |  | 2,277,537 | 50\% | 8.03\% | 16.00\% |
| 14 | 198 |  | 14,593,703 |  | 1,263,908 |  | 2,334,992 | 54\% | 8.66\% | 16.00\% |
| 15 | 188 |  | 14,733,530 |  | 1,173,088 |  | 2,357,365 | 50\% | 7.96\% | 16.00\% |
| 16 | 185 |  | 14,748,963 |  | 1,578,105 |  | 2,359,834 | 67\% | 10.70\% | 16.00\% |
| 17 | 201 |  | 16,144,423 |  | 1,770,787 |  | 2,583,108 | 69\% | 10.97\% | 16.00\% |
| 18 | 221 |  | 17,073,437 |  | 2,431,301 |  | 2,731,750 | 89\% | 14.24\% | 16.00\% |
| 19 | 325 |  | 25,993,265 |  | 3,967,204 |  | 4,158,922 | 95\% | 15.26\% | 16.00\% |
| 20 | 202 |  | 17,369,961 |  | 3,064,811 |  | 2,779,194 | 110\% | 17.64\% | 16.00\% |
| 21 | 70 |  | 6,424,141 |  | 1,085,501 |  | 1,027,863 | 106\% | 16.90\% | 16.00\% |
| 22 | 54 |  | 4,955,561 |  | 930,403 |  | 792,890 | 117\% | 18.77\% | 16.00\% |
| 23 | 34 |  | 3,357,882 |  | 684,055 |  | 537,261 | 127\% | 20.37\% | 16.00\% |
| 24 | 31 |  | 3,028,704 |  | 460,144 |  | 484,593 | 95\% | 15.19\% | 16.00\% |
| 25 | 28 |  | 3,063,265 |  | 582,167 |  | 490,122 | 119\% | 19.00\% | 16.00\% |
| 26 | 9 |  | 994,067 |  | 211,648 |  | 159,051 | 133\% | 21.29\% | 16.00\% |
| 27 | 7 |  | 770,643 |  | 168,399 |  | 123,303 | 137\% | 21.85\% | 16.00\% |
| 28 | 2 |  | 199,288 |  | 46,342 |  | 31,886 | 145\% | 23.25\% | 16.00\% |
| 29 | 1 |  | 131,302 |  | 17,291 |  | 21,008 | 82\% | 13.17\% | 16.00\% |
| 30 | 2 |  | 212,758 |  | 48,719 |  | 34,041 | 143\% | 22.90\% | 16.00\% |
| 31 | 4 |  | 372,808 |  | 54,249 |  | 59,649 | 91\% | 14.55\% | 16.00\% |
| 32 | 6 |  | 601,861 |  | 187,500 |  | 96,298 | 195\% | 31.15\% | 16.00\% |
| 33 | 2 |  | 146,699 |  | 915 |  | 23,472 | 4\% | 0.62\% | 16.00\% |
| 34 | 2 |  | 189,048 |  | 1,009 |  | 30,248 | 3\% | 0.53\% | 16.00\% |
| 35 | 6 |  | 567,837 |  | 108,402 |  | 90,854 | 119\% | 19.09\% | 16.00\% |
| 36 | 0 |  | - |  | - |  | - |  |  | 16.00\% |
| 37 | 0 |  | - |  | - |  | - |  |  | 16.00\% |
| 38 | 4 |  | 375,098 |  | 83,552 |  | 60,016 | 139\% | 22.27\% | 16.00\% |
| 39 | 2 |  | 195,514 |  | 41,619 |  | 31,282 | 133\% | 21.29\% | 16.00\% |
| 40 | 2 |  | 214,005 |  | 31,028 |  | 34,241 | 91\% | 14.50\% | 16.00\% |
| 41 | 1 |  | 110,158 |  | 21,785 |  | 17,625 | 124\% | 19.78\% | 16.00\% |
| 42 | 1 |  | 130,884 |  | 33,699 |  | 20,941 | 161\% | 25.75\% | 16.00\% |
| 43 | 0 |  | - |  | - |  | - |  |  | 16.00\% |
| 44 | 1 |  | 113,890 |  | 409 |  | 18,222 | 2\% | 0.36\% | 16.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 16.00\% |
| Total | 2,963 |  | 228,483,947 |  | 26,360,950 |  | 36,557,432 | $72 \%$ | 11.54\% | 16.00\% |

# NEW YORK CITY POLICE DEPARTMENT PENSION FUND OVERTIME PAY EXPERIENCE FOR ALL YEARS MEN AND WOMEN 

| Plan <br> Year | TABLE 10D |  |  | Actual Overtime |  | Expected Overtime |  | 10-YEAR PERIOD ENDING 6/30/2013 Increase \% |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending June 30, | Life Years <br> Exposed | Salary during the Year |  |  |  | Actual / <br> Expected | $\begin{aligned} & \hline \text { Actual } \\ & \text { (4) / (3) } \\ & \hline \end{aligned}$ | $\begin{gathered} \hline \text { Expected } \\ (5) /(3) \\ \hline \end{gathered}$ |
| (1) | (2) |  | (3) |  | (4) |  |  |  | (5) | (6) | (7) | (8) |
| 2004 | 31,226 | \$ | 1,711,055,841 | \$ | 289,620,351 | \$ | 255,580,075 | 113\% | 16.93\% | 14.94\% |
| 2005 | 29,906 |  | 1,804,597,602 |  | 300,560,118 |  | 269,446,862 | 112\% | 16.66\% | 14.93\% |
| 2006 | 31,131 |  | 1,889,292,299 |  | 338,543,714 |  | 282,038,312 | 120\% | 17.92\% | 14.93\% |
| 2007 | 31,410 |  | 1,913,049,377 |  | 325,531,705 |  | 285,147,594 | 114\% | 17.02\% | 14.91\% |
| 2008 | 31,701 |  | 1,980,941,656 |  | 349,746,673 |  | 294,781,085 | 119\% | 17.66\% | 14.88\% |
| 2009 | 32,635 |  | 2,179,135,007 |  | 405,869,430 |  | 323,675,802 | 125\% | 18.63\% | 14.85\% |
| 2010 | 32,422 |  | 2,260,946,662 |  | 407,000,355 |  | 334,886,168 | 122\% | 18.00\% | 14.81\% |
| 2011 | 30,898 |  | 2,571,504,420 |  | 418,628,636 |  | 379,748,493 | 110\% | 16.28\% | 14.77\% |
| 2012 | 30,343 |  | 2,665,938,470 |  | 423,841,369 |  | 393,190,424 | 108\% | 15.90\% | 14.75\% |
| 2013 | 31,101 |  | 2,709,918,297 |  | 477,942,873 |  | 398,943,127 | 120\% | 17.64\% | 14.72\% |
| Total | 312,773 |  | 21,686,379,630 |  | 3,737,285,224 |  | 3,217,437,943 | 116\% | 17.23\% | 14.84\% |



NEW YORK CITY FIRE DEPARTMENT PENSION FUND RETIREMENT ASSUMPTIONS AND EXPERIENCE FOR THE FOUR-YEAR PERIOD ENDING 6/30/2013




## NEW YORK CITY FIRE DEPARTMENT PENSION FUND

 ACTIVE MORTALITY ASSUMPTIONS AND EXPERIENCE FOR THE TEN-YEAR PERIOD ENDING 6/30/2013


## NEW YORK CITY FIRE DEPARTMENT PENSION FUND DISABILITY ASSUMPTIONS AND EXPERIENCE

 FOR THE EIGHT-YEAR PERIOD ENDING 6/30/2011


# NEW YORK CITY FIRE DEPARTMENT PENSION FUND <br> SALARY ASSUMPTIONS AND EXPERIENCE <br> FOR THE TEN-YEAR PERIOD ENDING 6/30/2013 




NEW YORK CITY FIRE DEPARTMENT PENSION FUND OVERTIME ASSUMPTIONS AND EXPERIENCE FOR THE TEN-YEAR PERIOD ENDING 6/30/2013



## NEW YORK CITY FIRE DEPARTMENT PENSION FUND MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

|  | TABLE 1A |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2) } /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | $\begin{gathered} \text { Expected } \\ (3) \times(5) \\ \hline \end{gathered}$ | Proposed $\text { (3) } \times(6)$ | Expected $(2) /(7)$ | Proposed $\text { (2) } / /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 4 | 0.000000 | 0.1408\% | 0.1059\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 6 | 0.000000 | 0.1521\% | 0.1155\% | 0.0 | 0.0 | 0\% | 0\% |
| 43 | 0 | 10 | 0.000000 | 0.1629\% | 0.1259\% | 0.0 | 0.0 | 0\% | 0\% |
| 44 | 0 | 18 | 0.000000 | 0.1736\% | 0.1370\% | 0.0 | 0.0 | 0\% | 0\% |
| 45 | 0 | 39 | 0.000000 | 0.1843\% | 0.1489\% | 0.1 | 0.1 | 0\% | 0\% |
| 46 | 0 | 55 | 0.000000 | 0.1946\% | 0.1614\% | 0.1 | 0.1 | 0\% | 0\% |
| 47 | 0 | 71 | 0.000000 | 0.2050\% | 0.1746\% | 0.1 | 0.1 | 0\% | 0\% |
| 48 | 0 | 98 | 0.000000 | 0.2150\% | 0.1886\% | 0.2 | 0.2 | 0\% | 0\% |
| 49 | 0 | 115 | 0.000000 | 0.2248\% | 0.2033\% | 0.3 | 0.2 | 0\% | 0\% |
| 50 | 1 | 182 | 0.005495 | 0.2344\% | 0.2191\% | 0.4 | 0.4 | 234\% | 251\% |
| 51 | 1 | 260 | 0.003846 | 0.2813\% | 0.2368\% | 0.7 | 0.6 | 137\% | 162\% |
| 52 | 0 | 354 | 0.000000 | 0.3237\% | 0.2572\% | 1.1 | 0.9 | 0\% | 0\% |
| 53 | 0 | 468 | 0.000000 | 0.3642\% | 0.2811\% | 1.7 | 1.3 | 0\% | 0\% |
| 54 | 1 | 509 | 0.001965 | 0.4012\% | 0.3093\% | 2.0 | 1.6 | 49\% | 64\% |
| 55 | 0 | 492 | 0.000000 | 0.4376\% | 0.3426\% | 2.2 | 1.7 | 0\% | 0\% |
| 56 | 3 | 484 | 0.006198 | 0.4806\% | 0.3817\% | 2.3 | 1.8 | 129\% | 162\% |
| 57 | 0 | 495 | 0.000000 | 0.5221\% | 0.4253\% | 2.6 | 2.1 | 0\% | 0\% |
| 58 | 3 | 469 | 0.006397 | 0.5625\% | 0.4739\% | 2.6 | 2.2 | 114\% | 135\% |
| 59 | 3 | 465 | 0.006452 | 0.5965\% | 0.5281\% | 2.8 | 2.5 | 108\% | 122\% |
| 60 | 1 | 464 | 0.002155 | 0.6285\% | 0.5884\% | 2.9 | 2.7 | 34\% | 37\% |
| 61 | 3 | 432 | 0.006944 | 0.6941\% | 0.6556\% | 3.0 | 2.8 | 100\% | 106\% |
| 62 | 4 | 463 | 0.008639 | 0.7564\% | 0.7305\% | 3.5 | 3.4 | 114\% | 118\% |
| 63 | 4 | 554 | 0.007220 | 0.8407\% | 0.8140\% | 4.7 | 4.5 | 86\% | 89\% |
| 64 | 6 | 576 | 0.010417 | 0.9389\% | 0.9070\% | 5.4 | 5.2 | 111\% | 115\% |
| 65 | 7 | 609 | 0.011494 | 1.0475\% | 1.0106\% | 6.4 | 6.2 | 110\% | 114\% |
| 66 | 7 | 623 | 0.011236 | 1.1320\% | 1.1261\% | 7.1 | 7.0 | 99\% | 100\% |
| 67 | 1 | 640 | 0.001563 | 1.2166\% | 1.2547\% | 7.8 | 8.0 | 13\% | 12\% |
| 68 | 8 | 702 | 0.011396 | 1.2948\% | 1.3981\% | 9.1 | 9.8 | 88\% | 82\% |
| 69 | 12 | 770 | 0.015584 | 1.3638\% | 1.5578\% | 10.5 | 12.0 | 114\% | 100\% |
| 70 | 15 | 849 | 0.017668 | 1.5093\% | 1.7358\% | 12.8 | 14.7 | 117\% | 102\% |
| 71 | 17 | 882 | 0.019274 | 1.6956\% | 1.9341\% | 15.0 | 17.1 | 114\% | 100\% |
| 72 | 18 | 907 | 0.019846 | 1.8816\% | 2.1550\% | 17.1 | 19.5 | 105\% | 92\% |
| 73 | 16 | 943 | 0.016967 | 2.1274\% | 2.4012\% | 20.1 | 22.6 | 80\% | 71\% |
| 74 | 32 | 917 | 0.034896 | 2.3730\% | 2.6756\% | 21.8 | 24.5 | 147\% | 130\% |
| 75 | 33 | 861 | 0.038328 | 2.6401\% | 2.9812\% | 22.7 | 25.7 | 145\% | 129\% |
| 76 | 28 | 826 | 0.033898 | 2.8878\% | 3.3218\% | 23.9 | 27.4 | 117\% | 102\% |
| 77 | 23 | 749 | 0.030708 | 3.1611\% | 3.7013\% | 23.7 | 27.7 | 97\% | 83\% |
| 78 | 36 | 700 | 0.051429 | 3.6536\% | 4.1242\% | 25.6 | 28.9 | 141\% | 125\% |
| 79 | 31 | 609 | 0.050903 | 4.1539\% | 4.5954\% | 25.3 | 28.0 | 123\% | 111\% |
| 80 | 20 | 554 | 0.036101 | 4.6620\% | 5.1204\% | 25.8 | 28.4 | 77\% | 71\% |
| 81 | 27 | 484 | 0.055785 | 5.2357\% | 5.7054\% | 25.3 | 27.6 | 107\% | 98\% |
| 82 | 21 | 450 | 0.046667 | 5.8289\% | 6.3572\% | 26.2 | 28.6 | 80\% | 73\% |
| 83 | 34 | 436 | 0.077982 | 6.8439\% | 7.0835\% | 29.8 | 30.9 | 114\% | 110\% |
| 84 | 28 | 385 | 0.072727 | 7.9429\% | 7.8927\% | 30.6 | 30.4 | 92\% | 92\% |
| 85 | 29 | 361 | 0.080332 | 9.0073\% | 8.7945\% | 32.5 | 31.7 | 89\% | 91\% |
| 86 | 36 | 339 | 0.106195 | 10.0924\% | 9.7992\% | 34.2 | 33.2 | 105\% | 108\% |
| 87 | 37 | 291 | 0.127148 | 11.2885\% | 10.9187\% | 32.8 | 31.8 | 113\% | 116\% |
| 88 | 31 | 232 | 0.133621 | 12.3089\% | 12.1661\% | 28.6 | 28.2 | 109\% | 110\% |
| 89 | 27 | 200 | 0.135000 | 13.2548\% | 13.5561\% | 26.5 | 27.1 | 102\% | 100\% |
| 90 | 25 | 161 | 0.155280 | 14.3320\% | 15.1048\% | 23.1 | 24.3 | 108\% | 103\% |
| 91 | 26 | 140 | 0.185714 | 15.8678\% | 16.8305\% | 22.2 | 23.6 | 117\% | 110\% |
| 92 | 21 | 122 | 0.172131 | 17.6967\% | 18.7533\% | 21.6 | 22.9 | 97\% | 92\% |
| 93 | 14 | 94 | 0.148936 | 20.4895\% | 20.8958\% | 19.3 | 19.6 | 73\% | 71\% |
| 94 | 20 | 84 | 0.238095 | 23.0688\% | 23.2831\% | 19.4 | 19.6 | 103\% | 102\% |
| 95 | 20 | 75 | 0.266667 | 25.6822\% | 25.9432\% | 19.3 | 19.5 | 104\% | 103\% |
| 96 | 10 | 56 | 0.178571 | 27.5980\% | 28.9071\% | 15.5 | 16.2 | 65\% | 62\% |
| 97 | 10 | 44 | 0.227273 | 29.3449\% | 32.2096\% | 12.9 | 14.2 | 77\% | 71\% |
| 98 | 11 | 34 | 0.323529 | 31.2831\% | 35.8895\% | 10.6 | 12.2 | 103\% | 90\% |
| 99 | 7 | 20 | 0.350000 | 32.7470\% | 39.9897\% | 6.5 | 8.0 | 107\% | 88\% |
| Subtotal | 768 | 23,232 |  |  |  | 750.3 | 791.7 | 102\% | 97\% |
| 100 or more | 8 | 20 | 0.400000 | 37.1685\% | 50.0000\% | 7.4 | 10.0 | 108\% | 80\% |
| Total | 776 | 23,252 |  |  |  | 757.7 | 801.7 | 102\% | 97\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

|  | TABLE 1A GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected $(7) /(3)$ | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 38 | 0.000000 | 0.1639\% | 0.1274\% | 0.1 | 0.0 | 0\% | 0\% |
| 45-49 | 0 | 378 | 0.000000 | 0.2100\% | 0.1824\% | 0.8 | 0.7 | 0\% | 0\% |
| 50-54 | 3 | 1,773 | 0.001692 | 0.3413\% | 0.2716\% | 6.1 | 4.8 | 50\% | 62\% |
| 55-59 | 9 | 2,405 | 0.003742 | 0.5187\% | 0.4290\% | 12.5 | 10.3 | 72\% | 87\% |
| 60-64 | 18 | 2,489 | 0.007232 | 0.7827\% | 0.7504\% | 19.5 | 18.7 | 92\% | 96\% |
| 65-69 | 35 | 3,344 | 0.010467 | 1.2204\% | 1.2862\% | 40.8 | 43.0 | 86\% | 81\% |
| 70-74 | 98 | 4,498 | 0.021787 | 1.9266\% | 2.1903\% | 86.7 | 98.5 | 113\% | 99\% |
| 75-79 | 151 | 3,745 | 0.040320 | 3.2345\% | 3.6765\% | 121.1 | 137.7 | 125\% | 110\% |
| 80-84 | 130 | 2,309 | 0.056301 | 5.9687\% | 6.3170\% | 137.8 | 145.9 | 94\% | 89\% |
| 85-89 | 160 | 1,423 | 0.112439 | 10.8676\% | 10.6872\% | 154.6 | 152.1 | 103\% | 105\% |
| 90-94 | 106 | 601 | 0.176373 | 17.5570\% | 18.2963\% | 105.5 | 110.0 | 100\% | 96\% |
| 95-99 | 58 | 229 | 0.253275 | 28.3030\% | 30.5755\% | 64.8 | 70.0 | 89\% | 83\% |
| 100+ | 8 | 20 | 0.400000 | 37.1685\% | 50.0000\% | 7.4 | 10.0 | 108\% | 80\% |
| Total | 776 | 23,252 |  |  |  | 757.7 | 801.7 | 102\% | 97\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

|  | TABLE 1A |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 0 | 27 | 0.000000 | 0.1447\% | 0.1149\% | 0.0 | 0.0 | 0\% | 0\% |
| 42 | 0 | 47 | 0.000000 | 0.1568\% | 0.1258\% | 0.1 | 0.1 | 0\% | 0\% |
| 43 | 0 | 62 | 0.000000 | 0.1684\% | 0.1373\% | 0.1 | 0.1 | 0\% | 0\% |
| 44 | 0 | 121 | 0.000000 | 0.1800\% | 0.1494\% | 0.2 | 0.2 | 0\% | 0\% |
| 45 | 1 | 218 | 0.004587 | 0.1917\% | 0.1619\% | 0.4 | 0.4 | 239\% | 283\% |
| 46 | 0 | 320 | 0.000000 | 0.2030\% | 0.1749\% | 0.6 | 0.6 | 0\% | 0\% |
| 47 | 1 | 437 | 0.002288 | 0.2145\% | 0.1882\% | 0.9 | 0.8 | 107\% | 122\% |
| 48 | 3 | 558 | 0.005376 | 0.2256\% | 0.2021\% | 1.3 | 1.1 | 238\% | 266\% |
| 49 | 2 | 658 | 0.003040 | 0.2367\% | 0.2163\% | 1.6 | 1.4 | 128\% | 141\% |
| 50 | 3 | 745 | 0.004027 | 0.2475\% | 0.2313\% | 1.8 | 1.7 | 163\% | 174\% |
| 51 | 2 | 869 | 0.002301 | 0.2979\% | 0.2479\% | 2.6 | 2.2 | 77\% | 93\% |
| 52 | 3 | 976 | 0.003074 | 0.3439\% | 0.2668\% | 3.4 | 2.6 | 89\% | 115\% |
| 53 | 3 | 1,079 | 0.002780 | 0.3870\% | 0.2890\% | 4.2 | 3.1 | 72\% | 96\% |
| 54 | 6 | 1,120 | 0.005357 | 0.4262\% | 0.3155\% | 4.8 | 3.5 | 126\% | 170\% |
| 55 | 5 | 1,134 | 0.004409 | 0.4635\% | 0.3474\% | 5.3 | 3.9 | 95\% | 127\% |
| 56 | 6 | 1,176 | 0.005102 | 0.5075\% | 0.3857\% | 6.0 | 4.5 | 101\% | 132\% |
| 57 | 3 | 1,238 | 0.002423 | 0.5497\% | 0.4295\% | 6.8 | 5.3 | 44\% | 56\% |
| 58 | 6 | 1,238 | 0.004847 | 0.5904\% | 0.4797\% | 7.3 | 5.9 | 82\% | 101\% |
| 59 | 10 | 1,299 | 0.007698 | 0.6261\% | 0.5370\% | 8.1 | 7.0 | 123\% | 143\% |
| 60 | 9 | 1,356 | 0.006637 | 0.6596\% | 0.6024\% | 8.9 | 8.2 | 101\% | 110\% |
| 61 | 7 | 1,419 | 0.004933 | 0.7263\% | 0.6765\% | 10.3 | 9.6 | 68\% | 73\% |
| 62 | 8 | 1,506 | 0.005312 | 0.7915\% | 0.7599\% | 11.9 | 11.4 | 67\% | 70\% |
| 63 | 19 | 1,646 | 0.011543 | 0.8770\% | 0.8532\% | 14.4 | 14.0 | 132\% | 135\% |
| 64 | 24 | 1,783 | 0.013460 | 0.9795\% | 0.9571\% | 17.5 | 17.1 | 137\% | 141\% |
| 65 | 18 | 1,921 | 0.009370 | 1.0928\% | 1.0725\% | 21.0 | 20.6 | 86\% | 87\% |
| 66 | 21 | 2,000 | 0.010500 | 1.1773\% | 1.2007\% | 23.5 | 24.0 | 89\% | 87\% |
| 67 | 19 | 2,084 | 0.009117 | 1.2653\% | 1.3432\% | 26.4 | 28.0 | 72\% | 68\% |
| 68 | 27 | 2,185 | 0.012357 | 1.3508\% | 1.5013\% | 29.5 | 32.8 | 91\% | 82\% |
| 69 | 31 | 2,231 | 0.013895 | 1.4227\% | 1.6774\% | 31.7 | 37.4 | 98\% | 83\% |
| 70 | 43 | 2,265 | 0.018985 | 1.5793\% | 1.8733\% | 35.8 | 42.4 | 120\% | 101\% |
| 71 | 36 | 2,224 | 0.016187 | 1.7742\% | 2.0914\% | 39.5 | 46.5 | 91\% | 77\% |
| 72 | 47 | 2,194 | 0.021422 | 1.9689\% | 2.3342\% | 43.2 | 51.2 | 109\% | 92\% |
| 73 | 48 | 2,089 | 0.022978 | 2.2261\% | 2.6043\% | 46.5 | 54.4 | 103\% | 88\% |
| 74 | 54 | 1,975 | 0.027342 | 2.4831\% | 2.9045\% | 49.0 | 57.4 | 110\% | 94\% |
| 75 | 63 | 1,833 | 0.034370 | 2.7542\% | 3.2377\% | 50.5 | 59.3 | 125\% | 106\% |
| 76 | 59 | 1,738 | 0.033947 | 3.0126\% | 3.6083\% | 52.4 | 62.7 | 113\% | 94\% |
| 77 | 47 | 1,601 | 0.029357 | 3.2876\% | 4.0193\% | 52.6 | 64.3 | 89\% | 73\% |
| 78 | 67 | 1,498 | 0.044726 | 3.7883\% | 4.4748\% | 56.7 | 67.0 | 118\% | 100\% |
| 79 | 63 | 1,391 | 0.045291 | 4.2941\% | 4.9810\% | 59.7 | 69.3 | 105\% | 91\% |
| 80 | 55 | 1,281 | 0.042935 | 4.8047\% | 5.5437\% | 61.5 | 71.0 | 89\% | 77\% |
| 81 | 76 | 1,171 | 0.064902 | 5.3796\% | 6.1689\% | 63.0 | 72.2 | 121\% | 105\% |
| 82 | 61 | 1,064 | 0.057331 | 5.9711\% | 6.8638\% | 63.5 | 73.0 | 96\% | 84\% |
| 83 | 76 | 1,016 | 0.074803 | 7.0108\% | 7.6370\% | 71.2 | 77.6 | 107\% | 98\% |
| 84 | 64 | 911 | 0.070252 | 8.1121\% | 8.4973\% | 73.9 | 77.4 | 87\% | 83\% |
| 85 | 76 | 841 | 0.090369 | 9.1991\% | 9.4545\% | 77.4 | 79.5 | 98\% | 96\% |
| 86 | 75 | 742 | 0.101078 | 10.3074\% | 10.5184\% | 76.5 | 78.0 | 98\% | 96\% |
| 87 | 85 | 667 | 0.127436 | 11.4941\% | 11.7010\% | 76.7 | 78.0 | 111\% | 109\% |
| 88 | 80 | 608 | 0.131579 | 12.4954\% | 13.0124\% | 76.0 | 79.1 | 105\% | 101\% |
| 89 | 80 | 542 | 0.147601 | 13.4556\% | 14.4665\% | 72.9 | 78.4 | 110\% | 102\% |
| 90 | 72 | 469 | 0.153518 | 14.5054\% | 16.0781\% | 68.0 | 75.4 | 106\% | 95\% |
| 91 | 80 | 417 | 0.191847 | 16.0598\% | 17.8639\% | 67.0 | 74.5 | 119\% | 107\% |
| 92 | 61 | 341 | 0.178886 | 17.8569\% | 19.8379\% | 60.9 | 67.6 | 100\% | 90\% |
| 93 | 51 | 268 | 0.190299 | 20.6750\% | 22.0145\% | 55.4 | 59.0 | 92\% | 86\% |
| 94 | 45 | 201 | 0.223881 | 23.2776\% | 24.4375\% | 46.8 | 49.1 | 96\% | 92\% |
| 95 | 46 | 152 | 0.302632 | 25.8369\% | 27.1410\% | 39.3 | 41.3 | 117\% | 112\% |
| 96 | 16 | 97 | 0.164948 | 27.7643\% | 30.1682\% | 26.9 | 29.3 | 59\% | 55\% |
| 97 | 15 | 75 | 0.200000 | 29.5217\% | 33.5331\% | 22.1 | 25.1 | 68\% | 60\% |
| 98 | 19 | 54 | 0.351852 | 31.3772\% | 37.2735\% | 16.9 | 20.1 | 112\% | 94\% |
| 99 | 10 | 29 | 0.344828 | 32.8454\% | 41.4352\% | 9.5 | 12.0 | 105\% | 83\% |
| Subtotal | 1,907 | 61,207 |  |  |  | 1,862.1 | 2,040.2 | 102\% | 93\% |
| 100 or more | 13 | 30 | 0.433333 | 37.1685\% | 51.6818\% | 11.2 | 15.5 | 117\% | 84\% |
| Total | 1,920 | 61,237 |  |  |  | 1,873.3 | 2,055.7 | 102\% | 93\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND MORTALITY EXPERIENCE OF SERVICE RETIREES MEN

|  | TABLE 1A GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 0 | 257 | 0.000000 | 0.1693\% | 0.1385\% | 0.4 | 0.4 | 0\% | 0\% |
| 45-49 | 7 | 2,191 | 0.003195 | 0.2200\% | 0.1956\% | 4.8 | 4.3 | 145\% | 163\% |
| 50-54 | 17 | 4,789 | 0.003550 | 0.3495\% | 0.2743\% | 16.7 | 13.1 | 102\% | 129\% |
| 55-59 | 30 | 6,085 | 0.004930 | 0.5501\% | 0.4389\% | 33.5 | 26.7 | 90\% | 112\% |
| 60-64 | 67 | 7,710 | 0.008690 | 0.8180\% | 0.7824\% | 63.1 | 60.3 | 106\% | 111\% |
| 65-69 | 116 | 10,421 | 0.011131 | 1.2682\% | 1.3707\% | 132.2 | 142.8 | 88\% | 81\% |
| 70-74 | 228 | 10,747 | 0.021215 | 1.9910\% | 2.3441\% | 214.0 | 251.9 | 107\% | 91\% |
| 75-79 | 299 | 8,061 | 0.037092 | 3.3737\% | 4.0036\% | 272.0 | 322.7 | 110\% | 93\% |
| 80-84 | 332 | 5,443 | 0.060996 | 6.1217\% | 6.8213\% | 333.2 | 371.3 | 100\% | 89\% |
| 85-89 | 396 | 3,400 | 0.116471 | 11.1592\% | 11.5626\% | 379.4 | 393.1 | 104\% | 101\% |
| 90-94 | 309 | 1,696 | 0.182193 | 17.5760\% | 19.2019\% | 298.1 | 325.7 | 104\% | 95\% |
| 95-99 | 106 | 407 | 0.260442 | 28.2097\% | 31.4033\% | 114.8 | 127.8 | 92\% | 83\% |
| 100+ | 13 | 30 | 0.433333 | 37.1685\% | 51.6818\% | 11.2 | 15.5 | 117\% | 84\% |
| Total | 1,920 | 61,237 |  |  |  | 1,873.3 | 2,055.7 | 102\% | 93\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND MORTALITY EXPERIENCE OF SERVICE RETIREES MEN AND WOMEN

| Plan <br> Year <br> Ending <br> June 30, | TABLE 1B <br> Life Years Exposed | Actual Deaths | Expected <br> Deaths | 10-YEAR PERIOD ENDING 6/30/2013$\qquad$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / <br> Expected | $\begin{aligned} & \hline \text { Actual } \\ & \text { (3) } /(2) \\ & \hline \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 6,596 | 222 | 159.7 | 139\% | 3.3657\% | 2.4219\% |
| 2005 | 6,520 | 182 | 158.9 | 115\% | 2.7914\% | 2.4370\% |
| 2006 | 6,439 | 197 | 162.0 | 122\% | 3.0595\% | 2.5160\% |
| 2007 | 6,355 | 206 | 163.2 | 126\% | 3.2415\% | 2.5684\% |
| 2008 | 6,241 | 196 | 161.2 | 122\% | 3.1405\% | 2.5832\% |
| 2009 | 6,092 | 186 | 164.4 | 113\% | 3.0532\% | 2.6982\% |
| 2010 | 5,948 | 186 | 165.3 | 113\% | 3.1271\% | 2.7793\% |
| 2011 | 5,884 | 203 | 165.5 | 123\% | 3.4500\% | 2.8129\% |
| 2012 | 5,830 | 179 | 167.3 | 107\% | 3.0703\% | 2.8688\% |
| 2013 | 5,645 | 221 | 171.2 | 129\% | 3.9150\% | 3.0336\% |
| Total | 61,550 | 1,978 | 1638.8 | 121\% | 3.2136\% | 2.6625\% |

[^25]
## NEW YORK CITY FIRE DEPARTMENT PENSION FUND MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN

|  | TABLE 2A |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed $\text { (2) } /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 2 | 263 | 0.007605 | 0.2338\% | 0.1964\% | 0.6 | 0.5 | 325\% | 387\% |
| 42 | 1 | 299 | 0.003344 | 0.2465\% | 0.1964\% | 0.7 | 0.6 | 136\% | 170\% |
| 43 | 0 | 342 | 0.000000 | 0.2597\% | 0.1964\% | 0.9 | 0.7 | 0\% | 0\% |
| 44 | 0 | 428 | 0.000000 | 0.2734\% | 0.1964\% | 1.2 | 0.8 | 0\% | 0\% |
| 45 | 4 | 508 | 0.007874 | 0.2877\% | 0.1964\% | 1.5 | 1.0 | 274\% | 401\% |
| 46 | 1 | 627 | 0.001595 | 0.3026\% | 0.1964\% | 1.9 | 1.2 | 53\% | 81\% |
| 47 | 1 | 740 | 0.001351 | 0.3180\% | 0.1964\% | 2.4 | 1.5 | 42\% | 69\% |
| 48 | 4 | 789 | 0.005070 | 0.3341\% | 0.2366\% | 2.6 | 1.9 | 152\% | 214\% |
| 49 | 3 | 819 | 0.003663 | 0.3508\% | 0.2768\% | 2.9 | 2.3 | 104\% | 132\% |
| 50 | 1 | 914 | 0.001094 | 0.3681\% | 0.3171\% | 3.4 | 2.9 | 30\% | 35\% |
| 51 | 6 | 1,056 | 0.005682 | 0.3861\% | 0.3573\% | 4.1 | 3.8 | 147\% | 159\% |
| 52 | 5 | 1,222 | 0.004092 | 0.4048\% | 0.3975\% | 4.9 | 4.9 | 101\% | 103\% |
| 53 | 6 | 1,404 | 0.004274 | 0.4341\% | 0.4476\% | 6.1 | 6.3 | 98\% | 95\% |
| 54 | 6 | 1,417 | 0.004234 | 0.4826\% | 0.4977\% | 6.8 | 7.1 | 88\% | 85\% |
| 55 | 4 | 1,394 | 0.002869 | 0.5351\% | 0.5478\% | 7.5 | 7.6 | 54\% | 52\% |
| 56 | 6 | 1,283 | 0.004677 | 0.5887\% | 0.5979\% | 7.6 | 7.7 | 79\% | 78\% |
| 57 | 8 | 1,125 | 0.007111 | 0.6432\% | 0.6481\% | 7.2 | 7.3 | 111\% | 110\% |
| 58 | 5 | 1,008 | 0.004960 | 0.6983\% | 0.7043\% | 7.0 | 7.1 | 71\% | 70\% |
| 59 | 10 | 891 | 0.011223 | 0.7484\% | 0.7605\% | 6.7 | 6.8 | 150\% | 148\% |
| 60 | 4 | 804 | 0.004975 | 0.8063\% | 0.8168\% | 6.5 | 6.6 | 62\% | 61\% |
| 61 | 3 | 761 | 0.003942 | 0.8859\% | 0.8730\% | 6.7 | 6.6 | 44\% | 45\% |
| 62 | 5 | 743 | 0.006729 | 0.9789\% | 0.9293\% | 7.3 | 6.9 | 69\% | 72\% |
| 63 | 10 | 761 | 0.013141 | 1.0895\% | 1.0147\% | 8.3 | 7.7 | 121\% | 130\% |
| 64 | 8 | 772 | 0.010363 | 1.2030\% | 1.1001\% | 9.3 | 8.5 | 86\% | 94\% |
| 65 | 12 | 736 | 0.016304 | 1.3075\% | 1.1855\% | 9.6 | 8.7 | 125\% | 138\% |
| 66 | 8 | 746 | 0.010724 | 1.4305\% | 1.2710\% | 10.7 | 9.5 | 75\% | 84\% |
| 67 | 12 | 801 | 0.014981 | 1.5242\% | 1.3564\% | 12.2 | 10.9 | 98\% | 110\% |
| 68 | 14 | 833 | 0.016807 | 1.7077\% | 1.5209\% | 14.2 | 12.7 | 98\% | 111\% |
| 69 | 12 | 904 | 0.013274 | 1.8993\% | 1.6854\% | 17.2 | 15.2 | 70\% | 79\% |
| 70 | 15 | 949 | 0.015806 | 2.0489\% | 1.8499\% | 19.4 | 17.6 | 77\% | 85\% |
| 71 | 13 | 981 | 0.013252 | 2.2692\% | 2.0145\% | 22.3 | 19.8 | 58\% | 66\% |
| 72 | 22 | 1,027 | 0.021422 | 2.4785\% | 2.1790\% | 25.5 | 22.4 | 86\% | 98\% |
| 73 | 14 | 1,052 | 0.013308 | 2.6769\% | 2.4993\% | 28.2 | 26.3 | 50\% | 53\% |
| 74 | 29 | 1,078 | 0.026902 | 2.8645\% | 2.8197\% | 30.9 | 30.4 | 94\% | 95\% |
| 75 | 27 | 1,019 | 0.026497 | 3.1007\% | 3.1400\% | 31.6 | 32.0 | 85\% | 84\% |
| 76 | 38 | 940 | 0.040426 | 3.5149\% | 3.4604\% | 33.0 | 32.5 | 115\% | 117\% |
| 77 | 28 | 862 | 0.032483 | 3.9509\% | 3.7807\% | 34.1 | 32.6 | 82\% | 86\% |
| 78 | 29 | 795 | 0.036478 | 4.3835\% | 4.3605\% | 34.8 | 34.7 | 83\% | 84\% |
| 79 | 26 | 724 | 0.035912 | 4.8121\% | 4.9403\% | 34.8 | 35.8 | 75\% | 73\% |
| 80 | 36 | 644 | 0.055901 | 5.2992\% | 5.5201\% | 34.1 | 35.5 | 105\% | 101\% |
| 81 | 24 | 545 | 0.044037 | 6.2049\% | 6.0999\% | 33.8 | 33.2 | 71\% | 72\% |
| 82 | 33 | 496 | 0.066532 | 7.1247\% | 6.6797\% | 35.3 | 33.1 | 93\% | 100\% |
| 83 | 29 | 442 | 0.065611 | 7.9946\% | 7.6494\% | 35.3 | 33.8 | 82\% | 86\% |
| 84 | 39 | 429 | 0.090909 | 8.9360\% | 8.6191\% | 38.3 | 37.0 | 102\% | 105\% |
| 85 | 46 | 403 | 0.114144 | 9.8127\% | 9.5888\% | 39.5 | 38.6 | 116\% | 119\% |
| 86 | 37 | 322 | 0.114907 | 10.6293\% | 10.5584\% | 34.2 | 34.0 | 108\% | 109\% |
| 87 | 33 | 253 | 0.130435 | 11.5548\% | 11.5281\% | 29.2 | 29.2 | 113\% | 113\% |
| 88 | 32 | 225 | 0.142222 | 12.5113\% | 13.0450\% | 28.2 | 29.4 | 114\% | 109\% |
| 89 | 32 | 189 | 0.169312 | 13.4297\% | 14.5618\% | 25.4 | 27.5 | 126\% | 116\% |
| 90 | 17 | 159 | 0.106918 | 14.5059\% | 16.0787\% | 23.1 | 25.6 | 74\% | 66\% |
| 91 | 25 | 139 | 0.179856 | 17.1004\% | 17.5955\% | 23.8 | 24.5 | 105\% | 102\% |
| 92 | 32 | 103 | 0.310680 | 19.7249\% | 19.1124\% | 20.3 | 19.7 | 158\% | 163\% |
| 93 | 14 | 66 | 0.212121 | 22.0640\% | 21.3605\% | 14.6 | 14.1 | 96\% | 99\% |
| 94 | 11 | 49 | 0.224490 | 24.2129\% | 23.6087\% | 11.9 | 11.6 | 93\% | 95\% |
| 95 | 13 | 38 | 0.342105 | 26.4716\% | 25.8569\% | 10.1 | 9.8 | 129\% | 132\% |
| 96 | 9 | 31 | 0.290323 | 28.3318\% | 28.1050\% | 8.8 | 8.7 | 102\% | 103\% |
| 97 | 7 | 16 | 0.437500 | 30.0103\% | 30.3532\% | 4.8 | 4.9 | 146\% | 144\% |
| 98 | 2 | 6 | 0.333333 | 31.5559\% | 33.5437\% | 1.9 | 2.0 | 106\% | 99\% |
| 99 | 1 | 2 | 0.500000 | 32.9285\% | 36.7341\% | 0.7 | 0.7 | 152\% | 136\% |
| Subtotal | 874 | 38,374 |  |  |  | 925.7 | 901.9 | 94\% | 97\% |
| 100 or more | 4 | 4 | 1.000000 | 33.6045\% | 46.3055\% | 1.3 | 1.9 | 298\% | 216\% |
| Total | 878 | 38,378 |  |  |  | 927.1 | 903.8 | 95\% | 97\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN

|  | TABLE 2A GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected $(7) /(3)$ | Proposed (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 3 | 1,332 | 0.002252 | 0.2560\% | 0.1964\% | 3.4 | 2.6 | 88\% | 115\% |
| 45-49 | 13 | 3,483 | 0.003732 | 0.3222\% | 0.2245\% | 11.2 | 7.8 | 116\% | 166\% |
| 50-54 | 24 | 6,013 | 0.003991 | 0.4211\% | 0.4135\% | 25.3 | 24.9 | 95\% | 97\% |
| 55-59 | 33 | 5,701 | 0.005788 | 0.6307\% | 0.6398\% | 36.0 | 36.5 | 92\% | 90\% |
| 60-64 | 30 | 3,841 | 0.007810 | 0.9913\% | 0.9458\% | 38.1 | 36.3 | 79\% | 83\% |
| 65-69 | 58 | 4,020 | 0.014428 | 1.5895\% | 1.4173\% | 63.9 | 57.0 | 91\% | 102\% |
| 70-74 | 93 | 5,087 | 0.018282 | 2.4808\% | 2.2879\% | 126.2 | 116.4 | 74\% | 80\% |
| 75-79 | 148 | 4,340 | 0.034101 | 3.8798\% | 3.8606\% | 168.4 | 167.5 | 88\% | 88\% |
| 80-84 | 161 | 2,556 | 0.062989 | 6.9231\% | 6.7571\% | 177.0 | 172.7 | 91\% | 93\% |
| 85-89 | 180 | 1,392 | 0.129310 | 11.2455\% | 11.3994\% | 156.5 | 158.7 | 115\% | 113\% |
| 90-94 | 99 | 516 | 0.191860 | 18.1351\% | 18.4835\% | 93.6 | 95.4 | 106\% | 104\% |
| 95-99 | 32 | 93 | 0.344086 | 28.1674\% | 28.1097\% | 26.2 | 26.1 | 122\% | 122\% |
| 100+ | 4 | 4 | 1.000000 | 33.6045\% | 46.3055\% | 1.3 | 1.9 | 298\% | 216\% |
| Total | 878 | 38,378 |  |  |  | 927.1 | 903.8 | 95\% | 97\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN

| Age | TABLE 2A |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41 | 2 | 644 | 0.003106 | 0.2403\% | 0.2132\% | 1.5 | 1.4 | 129\% | 146\% |
| 42 | 1 | 775 | 0.001290 | 0.2540\% | 0.2139\% | 2.0 | 1.7 | 51\% | 60\% |
| 43 | 1 | 912 | 0.001096 | 0.2684\% | 0.2143\% | 2.4 | 2.0 | 41\% | 51\% |
| 44 | 2 | 1,140 | 0.001754 | 0.2835\% | 0.2141\% | 3.2 | 2.4 | 62\% | 82\% |
| 45 | 5 | 1,370 | 0.003650 | 0.2992\% | 0.2137\% | 4.1 | 2.9 | 122\% | 171\% |
| 46 | 3 | 1,630 | 0.001840 | 0.3156\% | 0.2128\% | 5.1 | 3.5 | 58\% | 86\% |
| 47 | 2 | 1,933 | 0.001035 | 0.3328\% | 0.2118\% | 6.4 | 4.1 | 31\% | 49\% |
| 48 | 7 | 2,134 | 0.003280 | 0.3507\% | 0.2536\% | 7.5 | 5.4 | 94\% | 129\% |
| 49 | 8 | 2,293 | 0.003489 | 0.3693\% | 0.2946\% | 8.5 | 6.8 | 94\% | 118\% |
| 50 | 2 | 2,389 | 0.000837 | 0.3887\% | 0.3348\% | 9.3 | 8.0 | 22\% | 25\% |
| 51 | 11 | 2,507 | 0.004388 | 0.4090\% | 0.3741\% | 10.3 | 9.4 | 107\% | 117\% |
| 52 | 11 | 2,593 | 0.004242 | 0.4301\% | 0.4124\% | 11.2 | 10.7 | 99\% | 103\% |
| 53 | 8 | 2,665 | 0.003002 | 0.4612\% | 0.4602\% | 12.3 | 12.3 | 65\% | 65\% |
| 54 | 14 | 2,588 | 0.005410 | 0.5127\% | 0.5076\% | 13.3 | 13.1 | 106\% | 107\% |
| 55 | 10 | 2,484 | 0.004026 | 0.5668\% | 0.5555\% | 14.1 | 13.8 | 71\% | 72\% |
| 56 | 11 | 2,364 | 0.004653 | 0.6217\% | 0.6041\% | 14.7 | 14.3 | 75\% | 77\% |
| 57 | 15 | 2,203 | 0.006809 | 0.6772\% | 0.6545\% | 14.9 | 14.4 | 101\% | 104\% |
| 58 | 14 | 2,095 | 0.006683 | 0.7329\% | 0.7129\% | 15.4 | 14.9 | 91\% | 94\% |
| 59 | 21 | 1,973 | 0.010644 | 0.7855\% | 0.7735\% | 15.5 | 15.3 | 136\% | 138\% |
| 60 | 10 | 1,924 | 0.005198 | 0.8463\% | 0.8363\% | 16.3 | 16.1 | 61\% | 62\% |
| 61 | 10 | 1,966 | 0.005086 | 0.9270\% | 0.9008\% | 18.2 | 17.7 | 55\% | 56\% |
| 62 | 17 | 2,007 | 0.008470 | 1.0243\% | 0.9667\% | 20.6 | 19.4 | 83\% | 88\% |
| 63 | 23 | 2,066 | 0.011133 | 1.1365\% | 1.0636\% | 23.5 | 22.0 | 98\% | 105\% |
| 64 | 23 | 2,155 | 0.010673 | 1.2549\% | 1.1609\% | 27.0 | 25.0 | 85\% | 92\% |
| 65 | 35 | 2,273 | 0.015398 | 1.3639\% | 1.2582\% | 31.0 | 28.6 | 113\% | 122\% |
| 66 | 36 | 2,361 | 0.015248 | 1.4877\% | 1.3552\% | 35.1 | 32.0 | 102\% | 113\% |
| 67 | 38 | 2,426 | 0.015664 | 1.5853\% | 1.4521\% | 38.5 | 35.2 | 99\% | 108\% |
| 68 | 37 | 2,514 | 0.014718 | 1.7815\% | 1.6332\% | 44.8 | 41.1 | 83\% | 90\% |
| 69 | 44 | 2,596 | 0.016949 | 1.9813\% | 1.8149\% | 51.4 | 47.1 | 86\% | 93\% |
| 70 | 47 | 2,603 | 0.018056 | 2.1439\% | 1.9965\% | 55.8 | 52.0 | 84\% | 90\% |
| 71 | 51 | 2,564 | 0.019891 | 2.3744\% | 2.1783\% | 60.9 | 55.9 | 84\% | 91\% |
| 72 | 49 | 2,537 | 0.019314 | 2.5935\% | 2.3601\% | 65.8 | 59.9 | 74\% | 82\% |
| 73 | 44 | 2,480 | 0.017742 | 2.8011\% | 2.7107\% | 69.5 | 67.2 | 63\% | 65\% |
| 74 | 71 | 2,358 | 0.030110 | 2.9973\% | 3.0610\% | 70.7 | 72.2 | 100\% | 98\% |
| 75 | 73 | 2,151 | 0.033938 | 3.2346\% | 3.4102\% | 69.6 | 73.4 | 105\% | 100\% |
| 76 | 84 | 2,013 | 0.041729 | 3.6668\% | 3.7588\% | 73.8 | 75.7 | 114\% | 111\% |
| 77 | 72 | 1,856 | 0.038793 | 4.1091\% | 4.1056\% | 76.3 | 76.2 | 94\% | 94\% |
| 78 | 58 | 1,687 | 0.034381 | 4.5452\% | 4.7313\% | 76.7 | 79.8 | 76\% | 73\% |
| 79 | 62 | 1,569 | 0.039516 | 4.9745\% | 5.3549\% | 78.0 | 84.0 | 79\% | 74\% |
| 80 | 78 | 1,452 | 0.053719 | 5.4615\% | 5.9766\% | 79.3 | 86.8 | 98\% | 90\% |
| 81 | 86 | 1,289 | 0.066718 | 6.3755\% | 6.5955\% | 82.2 | 85.0 | 105\% | 101\% |
| 82 | 82 | 1,139 | 0.071993 | 7.2985\% | 7.2120\% | 83.1 | 82.1 | 99\% | 100\% |
| 83 | 68 | 1,013 | 0.067127 | 8.1896\% | 8.2471\% | 83.0 | 83.5 | 82\% | 81\% |
| 84 | 76 | 929 | 0.081808 | 9.1263\% | 9.2792\% | 84.8 | 86.2 | 90\% | 88\% |
| 85 | 89 | 837 | 0.106332 | 10.0217\% | 10.3084\% | 83.9 | 86.3 | 106\% | 103\% |
| 86 | 76 | 698 | 0.108883 | 10.8556\% | 11.3334\% | 75.8 | 79.1 | 100\% | 96\% |
| 87 | 71 | 593 | 0.119730 | 11.7653\% | 12.3540\% | 69.8 | 73.3 | 102\% | 97\% |
| 88 | 72 | 496 | 0.145161 | 12.7008\% | 13.9524\% | 63.0 | 69.2 | 114\% | 104\% |
| 89 | 58 | 403 | 0.143921 | 13.6332\% | 15.5398\% | 54.9 | 62.6 | 106\% | 93\% |
| 90 | 45 | 338 | 0.133136 | 14.6813\% | 17.1147\% | 49.6 | 57.8 | 91\% | 78\% |
| 91 | 48 | 281 | 0.170819 | 17.3072\% | 18.6759\% | 48.6 | 52.5 | 99\% | 91\% |
| 92 | 51 | 210 | 0.242857 | 19.9035\% | 20.2177\% | 41.8 | 42.5 | 122\% | 120\% |
| 93 | 36 | 140 | 0.257143 | 22.2637\% | 22.5041\% | 31.2 | 31.5 | 115\% | 114\% |
| 94 | 20 | 94 | 0.212766 | 24.4321\% | 24.7792\% | 23.0 | 23.3 | 87\% | 86\% |
| 95 | 24 | 70 | 0.342857 | 26.6310\% | 27.0507\% | 18.6 | 18.9 | 129\% | 127\% |
| 96 | 11 | 43 | 0.255814 | 28.5024\% | 29.3312\% | 12.3 | 12.6 | 90\% | 87\% |
| 97 | 9 | 25 | 0.360000 | 30.1911\% | 31.6004\% | 7.5 | 7.9 | 119\% | 114\% |
| 98 | 5 | 12 | 0.416667 | 31.6507\% | 34.8372\% | 3.8 | 4.2 | 132\% | 120\% |
| 99 | 1 | 5 | 0.200000 | 33.0275\% | 38.0620\% | 1.7 | 1.9 | 61\% | 53\% |
| Subtotal | 2,038 | 90,865 |  |  |  | 2,172.8 | 2,183.9 | 94\% | 93\% |
| 100 or more | 5 | 9 | 0.555556 | 37.1685\% | 47.9793\% | 3.3 | 4.3 | 149\% | 116\% |
| Total | 2,043 | 90,874 |  |  |  | 2,176.2 | 2,188.2 | 94\% | 93\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN

|  | TABLE 2A GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(8)$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 41-44 | 6 | 3,471 | 0.001729 | 0.2649\% | 0.2140\% | 9.2 | 7.4 | 65\% | 81\% |
| 45-49 | 25 | 9,360 | 0.002671 | 0.3379\% | 0.2421\% | 31.6 | 22.7 | 79\% | 110\% |
| 50-54 | 46 | 12,742 | 0.003610 | 0.4415\% | 0.4196\% | 56.3 | 53.5 | 82\% | 86\% |
| 55-59 | 71 | 11,119 | 0.006385 | 0.6704\% | 0.6538\% | 74.5 | 72.7 | 95\% | 98\% |
| 60-64 | 83 | 10,118 | 0.008203 | 1.0436\% | 0.9902\% | 105.6 | 100.2 | 79\% | 83\% |
| 65-69 | 190 | 12,170 | 0.015612 | 1.6500\% | 1.5119\% | 200.8 | 184.0 | 95\% | 103\% |
| 70-74 | 262 | 12,542 | 0.020890 | 2.5724\% | 2.4486\% | 322.6 | 307.1 | 81\% | 85\% |
| 75-79 | 349 | 9,276 | 0.037624 | 4.0360\% | 4.1942\% | 374.4 | 389.1 | 93\% | 90\% |
| 80-84 | 390 | 5,822 | 0.066987 | 7.0827\% | 7.2773\% | 412.4 | 423.7 | 95\% | 92\% |
| 85-89 | 366 | 3,027 | 0.120912 | 11.4754\% | 12.2391\% | 347.4 | 370.5 | 105\% | 99\% |
| 90-94 | 200 | 1,063 | 0.188147 | 18.2680\% | 19.5280\% | 194.2 | 207.6 | 103\% | 96\% |
| 95-99 | 50 | 155 | 0.322581 | 28.3193\% | 29.3752\% | 43.9 | 45.5 | 114\% | 110\% |
| 100+ | 5 | 9 | 0.555556 | 37.1685\% | 47.9793\% | 3.3 | 4.3 | 149\% | 116\% |
| Total | 2,043 | 90,874 |  |  |  | 2,176.2 | 2,188.2 | 94\% | 93\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND MORTALITY EXPERIENCE OF DISABILITY RETIREES MEN AND WOMEN

| Plan <br> Year <br> Ending <br> June 30, | TABLE 2B <br> Life Years Exposed | Actual Deaths | Expected Deaths | 10-YEAR PERIOD ENDING 6/30/2013 <br> Mortality Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / Expected | $\begin{aligned} & \text { Actual } \\ & \text { (3) / (2) } \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 8,469 | 193 | 155.6 | 124\% | 2.2789\% | 1.8373\% |
| 2005 | 8,619 | 171 | 162.2 | 105\% | 1.9840\% | 1.8816\% |
| 2006 | 8,879 | 193 | 170.1 | 113\% | 2.1737\% | 1.9156\% |
| 2007 | 9,086 | 200 | 176.8 | 113\% | 2.2012\% | 1.9462\% |
| 2008 | 9,302 | 210 | 182.8 | 115\% | 2.2576\% | 1.9656\% |
| 2009 | 9,469 | 218 | 189.2 | 115\% | 2.3022\% | 1.9978\% |
| 2010 | 9,578 | 205 | 193.8 | 106\% | 2.1403\% | 2.0233\% |
| 2011 | 9,779 | 249 | 201.4 | 124\% | 2.5463\% | 2.0600\% |
| 2012 | 9,846 | 219 | 205.5 | 107\% | 2.2243\% | 2.0875\% |
| 2013 | 9,998 | 211 | 210.8 | 100\% | 2.1104\% | 2.1084\% |
| Total | 93,025 | 2,069 | 1848.3 | 112\% | 2.2241\% | 1.9869\% |

[^26]NEW YORK CITY FIRE DEPARTMENT PENSION FUND
WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS
MEN AND WOMEN

| Service | TABLE 3A |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Withdrawals |  | Actual/Expected |  |
|  | Actual | Total <br> Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed $(2) /(8)$ |
| (1) | (2) |  | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 0 | 12 | 464 | 0.0259 | 2.00\% | 2.00\% | 9.3 | 9.3 | 129\% | 129\% |
| 1 | 20 | 1,590 | 0.0126 | 0.80\% | 0.80\% | 12.7 | 12.7 | 157\% | 157\% |
| 2 | 9 | 2,110 | 0.0043 | 0.40\% | 0.40\% | 8.4 | 8.4 | 107\% | 107\% |
| 3 | 11 | 2,473 | 0.0044 | 0.40\% | 0.40\% | 9.9 | 9.9 | 111\% | 111\% |
| 4 | 12 | 2,739 | 0.0044 | 0.40\% | 0.40\% | 11.0 | 11.0 | 110\% | 110\% |
| 5 | 5 | 2,850 | 0.0018 | 0.40\% | 0.40\% | 11.4 | 11.4 | 44\% | 44\% |
| 6 | 7 | 2,721 | 0.0026 | 0.36\% | 0.36\% | 9.8 | 9.8 | 71\% | 71\% |
| 7 | 9 | 2,409 | 0.0037 | 0.32\% | 0.32\% | 7.7 | 7.7 | 117\% | 117\% |
| 8 | 2 | 2,198 | 0.0009 | 0.28\% | 0.28\% | 6.2 | 6.2 | 32\% | 32\% |
| 9 | 4 | 2,013 | 0.0020 | 0.24\% | 0.24\% | 4.8 | 4.8 | 83\% | 83\% |
| 10 | 2 | 1,773 | 0.0011 | 0.20\% | 0.20\% | 3.5 | 3.5 | 56\% | 56\% |
| 11 | 0 | 1,752 | 0.0000 | 0.18\% | 0.18\% | 3.2 | 3.2 | 0\% | 0\% |
| 12 | 2 | 1,671 | 0.0012 | 0.16\% | 0.16\% | 2.7 | 2.7 | 75\% | 75\% |
| 13 | 1 | 1,543 | 0.0006 | 0.14\% | 0.14\% | 2.2 | 2.2 | 46\% | 46\% |
| 14 | 1 | 1,561 | 0.0006 | 0.12\% | 0.12\% | 1.9 | 1.9 | 53\% | 53\% |
| 15 | 2 | 1,392 | 0.0014 | 0.10\% | 0.10\% | 1.4 | 1.4 | 144\% | 144\% |
| 16 | 0 | 1,277 | 0.0000 | 0.10\% | 0.10\% | 1.3 | 1.3 | 0\% | 0\% |
| 17 | 0 | 1,398 | 0.0000 | 0.10\% | 0.10\% | 1.4 | 1.4 | 0\% | 0\% |
| 18 | 1 | 1,292 | 0.0008 | 0.10\% | 0.10\% | 1.3 | 1.3 | 77\% | 77\% |
| 19 | 1 | 1,242 | 0.0008 | 0.10\% | 0.10\% | 1.2 | 1.2 | 81\% | 81\% |
| Total | 101 | 36,468 | 0.0028 |  |  | 111.2 | 111.2 | 91\% | 91\% |

NEW YORK CITY FIRE DEPARTMENT PENSION FUND
WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS
MEN AND WOMEN

| Service | TABLE 3A |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Withdrawals |  | Actual/Expected |  |
|  | Actual | Total Exposed | Actual Rate $(2) /(3)$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 0 | 52 | 2,474 | 0.0210 | 2.00\% | 2.00\% | 49.5 | 49.5 | 105\% | 105\% |
| 1 | 49 | 4,574 | 0.0107 | 0.80\% | 0.80\% | 36.6 | 36.6 | 134\% | 134\% |
| 2 | 28 | 4,941 | 0.0057 | 0.40\% | 0.40\% | 19.8 | 19.8 | 142\% | 142\% |
| 3 | 21 | 4,944 | 0.0042 | 0.40\% | 0.40\% | 19.8 | 19.8 | 106\% | 106\% |
| 4 | 23 | 4,953 | 0.0046 | 0.40\% | 0.40\% | 19.8 | 19.8 | 116\% | 116\% |
| 5 | 15 | 4,861 | 0.0031 | 0.40\% | 0.40\% | 19.4 | 19.4 | 77\% | 77\% |
| 6 | 12 | 4,480 | 0.0027 | 0.36\% | 0.36\% | 16.1 | 16.1 | 74\% | 74\% |
| 7 | 19 | 4,162 | 0.0046 | 0.32\% | 0.32\% | 13.3 | 13.3 | 143\% | 143\% |
| 8 | 7 | 3,896 | 0.0018 | 0.28\% | 0.28\% | 10.9 | 10.9 | 64\% | 64\% |
| 9 | 11 | 3,659 | 0.0030 | 0.24\% | 0.24\% | 8.8 | 8.8 | 125\% | 125\% |
| 10 | 7 | 3,491 | 0.0020 | 0.20\% | 0.20\% | 7.0 | 7.0 | 100\% | 100\% |
| 11 | 3 | 3,293 | 0.0009 | 0.18\% | 0.18\% | 5.9 | 5.9 | 51\% | 51\% |
| 12 | 4 | 3,102 | 0.0013 | 0.16\% | 0.16\% | 5.0 | 5.0 | 81\% | 81\% |
| 13 | 5 | 3,098 | 0.0016 | 0.14\% | 0.14\% | 4.3 | 4.3 | 115\% | 115\% |
| 14 | 4 | 3,033 | 0.0013 | 0.12\% | 0.12\% | 3.6 | 3.6 | 110\% | 110\% |
| 15 | 3 | 2,878 | 0.0010 | 0.10\% | 0.10\% | 2.9 | 2.9 | 104\% | 104\% |
| 16 | 2 | 2,685 | 0.0007 | 0.10\% | 0.10\% | 2.7 | 2.7 | 74\% | 74\% |
| 17 | 1 | 2,655 | 0.0004 | 0.10\% | 0.10\% | 2.7 | 2.7 | 38\% | 38\% |
| 18 | 1 | 2,622 | 0.0004 | 0.10\% | 0.10\% | 2.6 | 2.6 | 38\% | 38\% |
| 19 | 2 | 2,759 | 0.0007 | 0.10\% | 0.10\% | 2.8 | 2.8 | 72\% | 72\% |
| Total | 269 | 72,560 | 0.0037 |  |  | 253.5 | 253.5 | 106\% | 106\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND

 WITHDRAWAL EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN| Plan Year | TABLE 3B |  |  | 10-YEAR PER | ENDING 6/3 Withdr | $\begin{aligned} & 013 \\ & 1 \text { Rate } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending June 30, | Life Years Exposed | Actual Withdrawals | Expected Withdrawals | Actual / Expected | Actual (3) / (2) | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 8,682 | 32 | 34.2 | 93\% | 0.37\% | 0.39\% |
| 2005 | 9,045 | 58 | 36.6 | 158\% | 0.64\% | 0.40\% |
| 2006 | 9,117 | 47 | 36.1 | 130\% | 0.52\% | 0.40\% |
| 2007 | 9,248 | 31 | 35.3 | 88\% | 0.34\% | 0.38\% |
| 2008 | 9,249 | 47 | 32.1 | 146\% | 0.51\% | 0.35\% |
| 2009 | 9,377 | 27 | 30.7 | 88\% | 0.29\% | 0.33\% |
| 2010 | 9,222 | 16 | 26.4 | 61\% | 0.17\% | 0.29\% |
| 2011 | 8,620 | 11 | 22.0 | 50\% | 0.13\% | 0.26\% |
| 2012 | 8,178 | 8 | 19.6 | 41\% | 0.10\% | 0.24\% |
| 2013 | 7,875 | 12 | 17.4 | 69\% | 0.15\% | 0.22\% |
| Total | 88,613 | 289 | 290.4 | 100\% | 0.33\% | 0.33\% |

*The total exposures and actuals shown above include experience at all service levels. I.e. service over 20 years

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND

RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY MEN AND WOMEN

| Age | TABLE 4A |  |  | Assumed Probability |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected (3) $\times(5)$ | Proposed (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 28 | 0.0000 | 10.00\% | 7.00\% | 2.8 | 2.0 | 0\% | 0\% |
| 41 | 3 | 62 | 0.0484 | 10.00\% | 7.00\% | 6.2 | 4.3 | 48\% | 69\% |
| 42 | 1 | 75 | 0.0133 | 10.00\% | 7.00\% | 7.5 | 5.3 | 13\% | 19\% |
| 43 | 6 | 85 | 0.0706 | 10.00\% | 7.00\% | 8.5 | 6.0 | 71\% | 101\% |
| 44 | 4 | 93 | 0.0430 | 10.00\% | 7.00\% | 9.3 | 6.5 | 43\% | 61\% |
| 45 | 3 | 105 | 0.0286 | 10.00\% | 7.00\% | 10.5 | 7.4 | 29\% | 41\% |
| 46 | 3 | 137 | 0.0219 | 11.00\% | 7.70\% | 15.1 | 10.5 | 20\% | 28\% |
| 47 | 5 | 135 | 0.0370 | 12.00\% | 8.40\% | 16.2 | 11.3 | 31\% | 44\% |
| 48 | 4 | 122 | 0.0328 | 13.00\% | 9.10\% | 15.9 | 11.1 | 25\% | 36\% |
| 49 | 6 | 80 | 0.0750 | 14.00\% | 9.80\% | 11.2 | 7.8 | 54\% | 77\% |
| 50 | 2 | 74 | 0.0270 | 15.00\% | 10.50\% | 11.1 | 7.8 | 18\% | 26\% |
| 51 | 3 | 53 | 0.0566 | 16.00\% | 11.20\% | 8.5 | 5.9 | 35\% | 51\% |
| 52 | 6 | 46 | 0.1304 | 17.00\% | 11.90\% | 7.8 | 5.5 | 77\% | 110\% |
| 53 | 1 | 26 | 0.0385 | 18.00\% | 12.60\% | 4.7 | 3.3 | 21\% | 31\% |
| 54 | 3 | 19 | 0.1579 | 19.00\% | 13.30\% | 3.6 | 2.5 | 83\% | 119\% |
| 55 | 2 | 12 | 0.1667 | 20.00\% | 14.00\% | 2.4 | 1.7 | 83\% | 119\% |
| 56 | 2 | 8 | 0.2500 | 20.00\% | 14.00\% | 1.6 | 1.1 | 125\% | 179\% |
| 57 | 0 | 0 | N/A | 20.00\% | 14.00\% | 0 | 0 | 0\% | 0\% |
| 58 | 0 | 0 | N/A | 20.00\% | 14.00\% | 0 | 0 | 0\% | 0\% |
| 59 | 0 | 0 | N/A | 20.00\% | 14.00\% | 0 | 0 | 0\% | 0\% |
| 60 | 0 | 0 | N/A | 20.00\% | 14.00\% | 0 | 0 | 0\% | 0\% |
| 61 | 0 | 0 | N/A | 30.00\% | 21.00\% | 0 | 0 | 0\% | 0\% |
| 62 | 0 | 0 | N/A | 40.00\% | 28.00\% | 0 | 0 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 100.00\% | 70.00\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 100.00\% | 70.00\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 100.00\% | 70.00\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 100.00\% | 70.00\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 100.00\% | 70.00\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 100.00\% | 70.00\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 100.00\% | 70.00\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 70.00\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 54 | 1,160 |  |  |  | 142.8 | 100.0 | 38\% | 54\% |
| 71 or more | 0 | 0 | N/A | 100.00\% | 70.00\% | 0 | 0 | 0\% | 0\% |
| Total | 54 | 1,160 |  |  |  | 142.8 | 100.0 | 38\% | 54\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND

RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY MEN AND WOMEN

| Age | TABLE 4B |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Retirements | Total Exposed | Actual Rate (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 3 | 0.0000 | 2.00\% | 1.80\% | 0.1 | 0.1 | 0\% | 0\% |
| 41 | 0 | 25 | 0.0000 | 2.00\% | 1.80\% | 0.5 | 0.5 | 0\% | 0\% |
| 42 | 1 | 55 | 0.0182 | 2.00\% | 1.80\% | 1.1 | 1.0 | 91\% | 101\% |
| 43 | 1 | 64 | 0.0156 | 2.00\% | 1.80\% | 1.3 | 1.2 | 78\% | 87\% |
| 44 | 2 | 67 | 0.0299 | 2.00\% | 1.80\% | 1.3 | 1.2 | 149\% | 166\% |
| 45 | 2 | 89 | 0.0225 | 2.00\% | 1.80\% | 1.8 | 1.6 | 112\% | 125\% |
| 46 | 0 | 97 | 0.0000 | 2.00\% | 1.80\% | 1.9 | 1.7 | 0\% | 0\% |
| 47 | 1 | 131 | 0.0076 | 2.00\% | 1.80\% | 2.6 | 2.4 | 38\% | 42\% |
| 48 | 1 | 128 | 0.0078 | 2.00\% | 1.80\% | 2.6 | 2.3 | 39\% | 43\% |
| 49 | 0 | 100 | 0.0000 | 2.00\% | 1.80\% | 2.0 | 1.8 | 0\% | 0\% |
| 50 | 0 | 69 | 0.0000 | 2.00\% | 1.80\% | 1.4 | 1.2 | 0\% | 0\% |
| 51 | 2 | 76 | 0.0263 | 2.00\% | 1.80\% | 1.5 | 1.4 | 132\% | 146\% |
| 52 | 4 | 50 | 0.0800 | 3.00\% | 2.70\% | 1.5 | 1.4 | 267\% | 296\% |
| 53 | 1 | 46 | 0.0217 | 4.00\% | 3.60\% | 1.8 | 1.7 | 54\% | 60\% |
| 54 | 0 | 21 | 0.0000 | 5.00\% | 4.50\% | 1.1 | 0.9 | 0\% | 0\% |
| 55 | 0 | 15 | 0.0000 | 6.00\% | 5.40\% | 0.9 | 0.8 | 0\% | 0\% |
| 56 | 0 | 7 | 0.0000 | 7.00\% | 6.30\% | 0.5 | 0.4 | 0\% | 0\% |
| 57 | 0 | 5 | 0.0000 | 8.00\% | 7.20\% | 0.4 | 0.4 | 0\% | 0\% |
| 58 | 0 | 0 | N/A | 9.00\% | 8.10\% | 0 | 0 | 0\% | 0\% |
| 59 | 0 | 0 | N/A | 10.00\% | 9.00\% | 0 | 0 | 0\% | 0\% |
| 60 | 0 | 0 | N/A | 12.00\% | 10.80\% | 0 | 0 | 0\% | 0\% |
| 61 | 0 | 0 | N/A | 15.00\% | 13.50\% | 0 | 0 | 0\% | 0\% |
| 62 | 0 | 0 | N/A | 20.00\% | 18.00\% | 0 | 0 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 100.00\% | 90.00\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 100.00\% | 90.00\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 100.00\% | 90.00\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 100.00\% | 90.00\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 100.00\% | 90.00\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 100.00\% | 90.00\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 100.00\% | 90.00\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 90.00\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 15 | 1,048 |  |  |  | 24.3 | 21.8 | 62\% | 69\% |
| 71 or more | 0 | 0 | N/A | 100.00\% | 90.00\% | 0 | 0 | 0\% | 0\% |
| Total | 15 | 1,048 |  |  |  | 24.3 | 21.8 | 62\% | 69\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND

RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY MEN AND WOMEN

| Age | TABLE 4C |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $\text { (3) } \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 1 | 0.0000 | 2.00\% | 1.70\% | 0.0 | 0.0 | 0\% | 0\% |
| 41 | 0 | 4 | 0.0000 | 2.00\% | 1.70\% | 0.1 | 0.1 | 0\% | 0\% |
| 42 | 1 | 26 | 0.0385 | 2.00\% | 1.70\% | 0.5 | 0.4 | 192\% | 226\% |
| 43 | 0 | 84 | 0.0000 | 2.00\% | 1.70\% | 1.7 | 1.4 | 0\% | 0\% |
| 44 | 4 | 130 | 0.0308 | 2.00\% | 1.70\% | 2.6 | 2.2 | 154\% | 181\% |
| 45 | 1 | 192 | 0.0052 | 2.00\% | 1.70\% | 3.8 | 3.3 | 26\% | $31 \%$ |
| 46 | 2 | 290 | 0.0069 | 2.00\% | 1.70\% | 5.8 | 4.9 | 34\% | 41\% |
| 47 | 6 | 411 | 0.0146 | 2.00\% | 1.70\% | 8.2 | 7.0 | 73\% | 86\% |
| 48 | 9 | 510 | 0.0176 | 2.00\% | 1.70\% | 10.2 | 8.7 | 88\% | 104\% |
| 49 | 9 | 575 | 0.0157 | 2.00\% | 1.70\% | 11.5 | 9.8 | 78\% | 92\% |
| 50 | 11 | 598 | 0.0184 | 2.00\% | 1.70\% | 12.0 | 10.2 | 92\% | 108\% |
| 51 | 14 | 638 | 0.0219 | 2.00\% | 1.70\% | 12.8 | 10.8 | 110\% | 129\% |
| 52 | 17 | 685 | 0.0248 | 3.00\% | 2.55\% | 20.6 | 17.5 | 83\% | 97\% |
| 53 | 15 | 663 | 0.0226 | 4.00\% | 3.40\% | 26.5 | 22.5 | 57\% | 67\% |
| 54 | 22 | 627 | 0.0351 | 5.00\% | 4.25\% | 31.4 | 26.6 | 70\% | 83\% |
| 55 | 21 | 521 | 0.0403 | 6.00\% | 5.10\% | 31.3 | 26.6 | 67\% | 79\% |
| 56 | 21 | 421 | 0.0499 | 7.00\% | 5.95\% | 29.5 | 25.0 | 71\% | 84\% |
| 57 | 14 | 334 | 0.0419 | 8.00\% | 6.80\% | 26.7 | 22.7 | 52\% | 62\% |
| 58 | 10 | 248 | 0.0403 | 9.00\% | 7.65\% | 22.3 | 19.0 | 45\% | 53\% |
| 59 | 5 | 168 | 0.0298 | 10.00\% | 8.50\% | 16.8 | 14.3 | 30\% | 35\% |
| 60 | 3 | 105 | 0.0286 | 12.00\% | 10.20\% | 12.6 | 10.7 | 24\% | 28\% |
| 61 | 7 | 78 | 0.0897 | 15.00\% | 12.75\% | 11.7 | 9.9 | 60\% | 70\% |
| 62 | 3 | 51 | 0.0588 | 20.00\% | 17.00\% | 10.2 | 8.7 | 29\% | 35\% |
| 63 | 2 | 38 | 0.0526 | 100.00\% | 85.00\% | 38.0 | 32.3 | 5\% | 6\% |
| 64 | 7 | 28 | 0.2500 | 100.00\% | 85.00\% | 28.0 | 23.8 | 25\% | 29\% |
| 65 | 4 | 11 | 0.3636 | 100.00\% | 85.00\% | 11.0 | 9.4 | 36\% | 43\% |
| 66 | 0 | 2 | 0.0000 | 100.00\% | 85.00\% | 2.0 | 1.7 | 0\% | 0\% |
| 67 | 0 | 2 | 0.0000 | 100.00\% | 85.00\% | 2.0 | 1.7 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 100.00\% | 85.00\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 100.00\% | 85.00\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 85.00\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 208 | 7,441 |  |  |  | 389.7 | 331.2 | 53\% | 63\% |
| 71 or more | 0 | 0 | N/A | 100.00\% | 85.00\% | 0 | 0 | 0\% | 0\% |
| Total | 208 | 7,441 |  |  |  | 389.7 | 331.2 | 53\% | 63\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND

 RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY MEN AND WOMEN|  | TABLE 4A GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed <br> (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40-44 | 14 | 343 | 0.0408 | 10.00\% | 7.00\% | 34.3 | 24.0 | 41\% | 58\% |
| 45-59 | 21 | 579 | 0.0363 | 11.89\% | 8.32\% | 68.8 | 48.2 | 31\% | 44\% |
| 50-54 | 15 | 218 | 0.0688 | 16.37\% | 11.46\% | 35.7 | 25.0 | 42\% | 60\% |
| 55-59 | 4 | 20 | 0.2000 | 20.00\% | 14.00\% | 4.0 | 2.8 | 100\% | 143\% |
| 60-64 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 54 | 1,160 |  |  |  | 142.8 | 100.0 | 38\% | 54\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND

 RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY MEN AND WOMEN|  | TABLE 4B GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed (8) / (3) | Expected | Proposed | Expected $(2) /(7)$ | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40-44 | 4 | 214 | 0.0187 | 2.00\% | 1.80\% | 4.3 | 3.9 | 93\% | 104\% |
| 45-59 | 4 | 545 | 0.0073 | 2.00\% | 1.80\% | 10.9 | 9.8 | 37\% | 41\% |
| 50-54 | 7 | 262 | 0.0267 | 2.78\% | 2.50\% | 7.3 | 6.6 | 96\% | 107\% |
| 55-59 | 0 | 27 | 0.0000 | 6.63\% | 5.97\% | 1.8 | 1.6 | 0\% | 0\% |
| 60-64 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 15 | 1,048 |  |  |  | 24.3 | 21.8 | 62\% | 69\% |

# NEW YORK CITY FIRE DEPARTMENT PENSION FUND 

## RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY

 MEN AND WOMEN|  | TABLE 4C GROUPED |  |  | $\begin{array}{ll} & \text { 4-YEAR PERIOD ENDING 6/30/2013 } \\ \text { Assumed Probability } \\ \text { Expected Retirements }\end{array}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total <br> Exposed | Actual Rate (2) / (3) | Expected <br> (7) / (3) | Proposed (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40-44 | 5 | 245 | 0.0204 | 2.00\% | 1.70\% | 4.9 | 4.2 | 102\% | 120\% |
| 45-59 | 27 | 1,978 | 0.0137 | 2.00\% | 1.70\% | 39.6 | 33.6 | 68\% | 80\% |
| 50-54 | 79 | 3,211 | 0.0246 | 3.21\% | 2.73\% | 103.1 | 87.7 | 77\% | 90\% |
| 55-59 | 71 | 1,692 | 0.0420 | 7.48\% | 6.36\% | 126.6 | 107.6 | 56\% | 66\% |
| 60-64 | 22 | 300 | 0.0733 | 33.50\% | 28.48\% | 100.5 | 85.4 | 22\% | 26\% |
| 65-69 | 4 | 15 | 0.2667 | 100.00\% | 85.00\% | 15.0 | 12.8 | 27\% | 31\% |
| 70+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 208 | 7,441 |  |  |  | 389.7 | 331.2 | 53\% | 63\% |

NEW YORK CITY FIRE DEPARTMENT PENSION FUND
RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY MEN AND WOMEN

| Age | TABLE 4A |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Retirements | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 19 | 103 | 0.1845 | 10.00\% | 7.00\% | 10.3 | 7.2 | 184\% | 264\% |
| 41 | 18 | 238 | 0.0756 | 10.00\% | 7.00\% | 23.8 | 16.7 | 76\% | 108\% |
| 42 | 10 | 224 | 0.0446 | 10.00\% | 7.00\% | 22.4 | 15.7 | 45\% | 64\% |
| 43 | 17 | 243 | 0.0700 | 10.00\% | 7.00\% | 24.3 | 17.0 | 70\% | 100\% |
| 44 | 27 | 319 | 0.0846 | 10.00\% | 7.00\% | 31.9 | 22.3 | 85\% | 121\% |
| 45 | 22 | 358 | 0.0615 | 10.00\% | 7.00\% | 35.8 | 25.1 | 61\% | 88\% |
| 46 | 27 | 385 | 0.0701 | 11.00\% | 7.70\% | 42.4 | 29.6 | 64\% | 91\% |
| 47 | 29 | 327 | 0.0887 | 12.00\% | 8.40\% | 39.2 | 27.5 | 74\% | 106\% |
| 48 | 24 | 290 | 0.0828 | 13.00\% | 9.10\% | 37.7 | 26.4 | 64\% | 91\% |
| 49 | 18 | 230 | 0.0783 | 14.00\% | 9.80\% | 32.2 | 22.5 | 56\% | 80\% |
| 50 | 14 | 188 | 0.0745 | 15.00\% | 10.50\% | 28.2 | 19.7 | 50\% | 71\% |
| 51 | 16 | 126 | 0.1270 | 16.00\% | 11.20\% | 20.2 | 14.1 | 79\% | 113\% |
| 52 | 15 | 114 | 0.1316 | 17.00\% | 11.90\% | 19.4 | 13.6 | 77\% | 111\% |
| 53 | 9 | 59 | 0.1525 | 18.00\% | 12.60\% | 10.6 | 7.4 | 85\% | 121\% |
| 54 | 6 | 36 | 0.1667 | 19.00\% | 13.30\% | 6.8 | 4.8 | 88\% | 125\% |
| 55 | 3 | 16 | 0.1875 | 20.00\% | 14.00\% | 3.2 | 2.2 | 94\% | 134\% |
| 56 | 2 | 10 | 0.2000 | 20.00\% | 14.00\% | 2.0 | 1.4 | 100\% | 143\% |
| 57 | 0 | 1 | 0.0000 | 20.00\% | 14.00\% | 0.2 | 0.1 | 0\% | 0\% |
| 58 | 0 | 0 | N/A | 20.00\% | 14.00\% | 0 | 0 | 0\% | 0\% |
| 59 | 0 | 0 | N/A | 20.00\% | 14.00\% | 0 | 0 | 0\% | 0\% |
| 60 | 0 | 0 | N/A | 20.00\% | 14.00\% | 0 | 0 | 0\% | 0\% |
| 61 | 0 | 0 | N/A | 30.00\% | 21.00\% | 0 | 0 | 0\% | 0\% |
| 62 | 0 | 0 | N/A | 40.00\% | 28.00\% | 0 | 0 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 100.00\% | 70.00\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 100.00\% | 70.00\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 100.00\% | 70.00\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 100.00\% | 70.00\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 100.00\% | 70.00\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 100.00\% | 70.00\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 100.00\% | 70.00\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 70.00\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 276 | 3,267 |  |  |  | 390.6 | 273.4 | 71\% | 101\% |
| 71 or more | 0 | 0 | N/A | 100.00\% | 70.00\% | 0 | 0 | 0\% | 0\% |
| Total | 276 | 3,267 |  |  |  | 390.6 | 273.4 | 71\% | 101\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND

RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY MEN AND WOMEN

| Age | TABLE 4B |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Retirements | Total <br> Exposed | Actual Rate $\qquad$ | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected $(2) /(7)$ | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 9 | 0.0000 | 2.00\% | 1.80\% | 0.2 | 0.2 | 0\% | 0\% |
| 41 | 1 | 72 | 0.0139 | 2.00\% | 1.80\% | 1.4 | 1.3 | 69\% | 77\% |
| 42 | 2 | 198 | 0.0101 | 2.00\% | 1.80\% | 4.0 | 3.6 | 51\% | 56\% |
| 43 | 4 | 188 | 0.0213 | 2.00\% | 1.80\% | 3.8 | 3.4 | 106\% | 118\% |
| 44 | 5 | 244 | 0.0205 | 2.00\% | 1.80\% | 4.9 | 4.4 | 102\% | 114\% |
| 45 | 9 | 291 | 0.0309 | 2.00\% | 1.80\% | 5.8 | 5.2 | 155\% | 172\% |
| 46 | 3 | 334 | 0.0090 | 2.00\% | 1.80\% | 6.7 | 6.0 | 45\% | 50\% |
| 47 | 3 | 336 | 0.0089 | 2.00\% | 1.80\% | 6.7 | 6.0 | 45\% | 50\% |
| 48 | 10 | 279 | 0.0358 | 2.00\% | 1.80\% | 5.6 | 5.0 | 179\% | 199\% |
| 49 | 7 | 246 | 0.0285 | 2.00\% | 1.80\% | 4.9 | 4.4 | 142\% | 158\% |
| 50 | 4 | 194 | 0.0206 | 2.00\% | 1.80\% | 3.9 | 3.5 | 103\% | 115\% |
| 51 | 3 | 162 | 0.0185 | 2.00\% | 1.80\% | 3.2 | 2.9 | 93\% | 103\% |
| 52 | 7 | 98 | 0.0714 | 3.00\% | 2.70\% | 2.9 | 2.6 | 238\% | 265\% |
| 53 | 2 | 90 | 0.0222 | 4.00\% | 3.60\% | 3.6 | 3.2 | 56\% | 62\% |
| 54 | 0 | 41 | 0.0000 | 5.00\% | 4.50\% | 2.1 | 1.8 | 0\% | 0\% |
| 55 | 0 | 23 | 0.0000 | 6.00\% | 5.40\% | 1.4 | 1.2 | 0\% | 0\% |
| 56 | 0 | 10 | 0.0000 | 7.00\% | 6.30\% | 0.7 | 0.6 | 0\% | 0\% |
| 57 | 0 | 7 | 0.0000 | 8.00\% | 7.20\% | 0.6 | 0.5 | 0\% | 0\% |
| 58 | 0 | 0 | N/A | 9.00\% | 8.10\% | 0 | 0 | 0\% | 0\% |
| 59 | 0 | 0 | N/A | 10.00\% | 9.00\% | 0 | 0 | 0\% | 0\% |
| 60 | 0 | 0 | N/A | 12.00\% | 10.80\% | 0 | 0 | 0\% | 0\% |
| 61 | 0 | 0 | N/A | 15.00\% | 13.50\% | 0 | 0 | 0\% | 0\% |
| 62 | 0 | 0 | N/A | 20.00\% | 18.00\% | 0 | 0 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 100.00\% | 90.00\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 100.00\% | 90.00\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 100.00\% | 90.00\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 100.00\% | 90.00\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 100.00\% | 90.00\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 100.00\% | 90.00\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 100.00\% | 90.00\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 90.00\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 60 | 2,822 |  |  |  | 62.3 | 56.1 | 96\% | 107\% |
| 71 or more | 0 | 0 | N/A | 100.00\% | 90.00\% | 0 | 0 | 0\% | 0\% |
| Total | 60 | 2,822 |  |  |  | 62.3 | 56.1 | 96\% | 107\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND

RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY MEN AND WOMEN

| Age | TABLE 4C |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40 | 0 | 5 | 0.0000 | 2.00\% | 1.70\% | 0.1 | 0.1 | 0\% | 0\% |
| 41 | 0 | 12 | 0.0000 | 2.00\% | 1.70\% | 0.2 | 0.2 | 0\% | 0\% |
| 42 | 1 | 77 | 0.0130 | 2.00\% | 1.70\% | 1.5 | 1.3 | 65\% | 76\% |
| 43 | 1 | 245 | 0.0041 | 2.00\% | 1.70\% | 4.9 | 4.2 | 20\% | 24\% |
| 44 | 7 | 417 | 0.0168 | 2.00\% | 1.70\% | 8.3 | 7.1 | 84\% | 99\% |
| 45 | 8 | 674 | 0.0119 | 2.00\% | 1.70\% | 13.5 | 11.5 | 59\% | 70\% |
| 46 | 19 | 943 | 0.0201 | 2.00\% | 1.70\% | 18.9 | 16.0 | 101\% | 119\% |
| 47 | 20 | 1,254 | 0.0159 | 2.00\% | 1.70\% | 25.1 | 21.3 | 80\% | 94\% |
| 48 | 30 | 1,484 | 0.0202 | 2.00\% | 1.70\% | 29.7 | 25.2 | 101\% | 119\% |
| 49 | 30 | 1,598 | 0.0188 | 2.00\% | 1.70\% | 32.0 | 27.2 | 94\% | 110\% |
| 50 | 36 | 1,622 | 0.0222 | 2.00\% | 1.70\% | 32.4 | 27.6 | 111\% | 131\% |
| 51 | 36 | 1,565 | 0.0230 | 2.00\% | 1.70\% | 31.3 | 26.6 | 115\% | 135\% |
| 52 | 45 | 1,491 | 0.0302 | 3.00\% | 2.55\% | 44.7 | 38.0 | 101\% | 118\% |
| 53 | 32 | 1,316 | 0.0243 | 4.00\% | 3.40\% | 52.6 | 44.7 | 61\% | 72\% |
| 54 | 37 | 1,156 | 0.0320 | 5.00\% | 4.25\% | 57.8 | 49.1 | 64\% | 75\% |
| 55 | 41 | 935 | 0.0439 | 6.00\% | 5.10\% | 56.1 | 47.7 | 73\% | 86\% |
| 56 | 33 | 719 | 0.0459 | 7.00\% | 5.95\% | 50.3 | 42.8 | 66\% | 77\% |
| 57 | 22 | 559 | 0.0394 | 8.00\% | 6.80\% | 44.7 | 38.0 | 49\% | 58\% |
| 58 | 23 | 409 | 0.0562 | 9.00\% | 7.65\% | 36.8 | 31.3 | 62\% | 74\% |
| 59 | 11 | 277 | 0.0397 | 10.00\% | 8.50\% | 27.7 | 23.5 | 40\% | 47\% |
| 60 | 5 | 194 | 0.0258 | 12.00\% | 10.20\% | 23.3 | 19.8 | 21\% | 25\% |
| 61 | 13 | 151 | 0.0861 | 15.00\% | 12.75\% | 22.7 | 19.3 | 57\% | 68\% |
| 62 | 7 | 101 | 0.0693 | 20.00\% | 17.00\% | 20.2 | 17.2 | 35\% | 41\% |
| 63 | 6 | 75 | 0.0800 | 100.00\% | 85.00\% | 75.0 | 63.8 | 8\% | 9\% |
| 64 | 9 | 49 | 0.1837 | 100.00\% | 85.00\% | 49.0 | 41.7 | 18\% | 22\% |
| 65 | 8 | 20 | 0.4000 | 100.00\% | 85.00\% | 20.0 | 17.0 | 40\% | 47\% |
| 66 | 0 | 0 | N/A | 100.00\% | 85.00\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 100.00\% | 85.00\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 100.00\% | 85.00\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 100.00\% | 85.00\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 100.00\% | 85.00\% | 0 | 0 | 0\% | 0\% |
| Subtotal | 480 | 17,348 |  |  |  | 778.9 | 662.0 | 62\% | 73\% |
| 71 or more | 0 | 0 | N/A | 100.00\% | 85.00\% | 1.0 | 0 | 0\% | 0\% |
| Total | 480 | 17,348 |  |  |  | 779.9 | 662.0 | 62\% | 73\% |

NEW YORK CITY FIRE DEPARTMENT PENSION FUND
RETIREMENT EXPERIENCE OF THOSE IN FIRST YEAR OF ELIGIBILITY MEN AND WOMEN

| Age | TABLE 4A GROUPED |  |  | Assumed Probability |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Retirements | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed $(8) /(3)$ | Expected | Proposed | Expected (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40-44 | 91 | 1,127 | 0.0807 | 10.00\% | 7.00\% | 112.7 | 78.9 | 81\% | 115\% |
| 45-59 | 120 | 1,590 | 0.0755 | 11.78\% | 8.25\% | 187.3 | 131.1 | 64\% | 92\% |
| 50-54 | 60 | 523 | 0.1147 | 16.29\% | 11.40\% | 85.2 | 59.6 | 70\% | 101\% |
| 55-59 | 5 | 27 | 0.1852 | 20.00\% | 14.00\% | 5.4 | 3.8 | 93\% | 132\% |
| 60-64 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 276 | 3,267 |  |  |  | 390.6 | 273.4 | 71\% | 101\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND

 RETIREMENT EXPERIENCE OF THOSE IN SECOND YEAR OF ELIGIBILITY MEN AND WOMEN|  | TABLE 4B GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Retirements | Total Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed (8) / (3) | Expected | Proposed | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40-44 | 12 | 711 | 0.0169 | 2.00\% | 1.80\% | 14.2 | 12.8 | 84\% | 94\% |
| 45-59 | 32 | 1,486 | 0.0215 | 2.00\% | 1.80\% | 29.7 | 26.7 | 108\% | 120\% |
| 50-54 | 16 | 585 | 0.0274 | 2.69\% | 2.42\% | 15.7 | 14.1 | 102\% | 113\% |
| 55-59 | 0 | 40 | 0.0000 | 6.60\% | 5.94\% | 2.6 | 2.4 | 0\% | 0\% |
| 60-64 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70+ | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 60 | 2,822 |  |  |  | 62.3 | 56.1 | 96\% | 107\% |

# NEW YORK CITY FIRE DEPARTMENT PENSION FUND 

 RETIREMENT EXPERIENCE OF THOSE AFTER SECOND YEAR OF ELIGIBILITY MEN AND WOMEN|  | TABLE 4C GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual <br> Retirements | Total Exposed | Actual Rate <br> (2) / (3) | Expected $(7) /(3)$ | Proposed $(8) /(3)$ | Expected | Proposed | Expected $(2) /(7)$ | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 40-44 | 9 | 756 | 0.0119 | 2.00\% | 1.70\% | 15.1 | 12.9 | 60\% | 70\% |
| 45-59 | 107 | 5,953 | 0.0180 | 2.00\% | 1.70\% | 119.1 | 101.2 | 90\% | 106\% |
| 50-54 | 186 | 7,150 | 0.0260 | 3.06\% | 2.60\% | 218.9 | 186.1 | 85\% | 100\% |
| 55-59 | 130 | 2,899 | 0.0448 | 7.44\% | 6.32\% | 215.7 | 183.3 | 60\% | 71\% |
| 60-64 | 40 | 570 | 0.0702 | 33.36\% | 28.35\% | 190.1 | 161.6 | 21\% | 25\% |
| 65-69 | 8 | 20 | 0.4000 | 100.00\% | 85.00\% | 20.0 | 17.0 | 40\% | 47\% |
| 70+ | 0 | 0 | N/A |  |  | 1.0 | 0 | 0\% | 0\% |
| Total | 480 | 17,348 |  |  |  | 779.9 | 662.0 | 62\% | 73\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND

 RETIREMENT EXPERIENCE - ALL EXPERIENCE COMBINED MEN AND WOMEN| Plan <br> Year <br> Ending <br> June 30, | TABLE 4D <br> Life Years Exposed | Actual <br> Retirements | Expected <br> Retirements | 10-YEAR PERIOD ENDING 6/30/2013 <br> Retirement Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / <br> Expected | $\begin{aligned} & \text { Actual } \\ & \text { (3) / (2) } \\ & \hline \end{aligned}$ | Expected (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 2,237 | 146 | 116.7 | 125\% | 6.53\% | 5.21\% |
| 2005 | 2,293 | 103 | 115.8 | 89\% | 4.49\% | 5.05\% |
| 2006 | 2,418 | 113 | 122.7 | 92\% | 4.67\% | 5.07\% |
| 2007 | 2,352 | 93 | 107.5 | 86\% | 3.95\% | 4.57\% |
| 2008 | 2,294 | 45 | 109.3 | 41\% | 1.96\% | 4.77\% |
| 2009 | 2,215 | 41 | 104.0 | 39\% | 1.85\% | 4.70\% |
| 2010 | 2,233 | 45 | 117.6 | 38\% | 2.02\% | 5.27\% |
| 2011 | 2,515 | 90 | 157.4 | 57\% | 3.58\% | 6.26\% |
| 2012 | 2,487 | 52 | 144.8 | 36\% | 2.09\% | 5.82\% |
| 2013 | 2,426 | 90 | 139.8 | 64\% | 3.71\% | 5.76\% |
| Total | 23,470 | 818 | 1,235.6 | 66\% | 3.49\% | 5.26\% |

[^27]
# NEW YORK CITY FIRE DEPARTMENT PENSION FUND ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS <br> MEN 

| Age | TABLE 5A |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.040\% | 0.024\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.040\% | 0.024\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 6 | 0.00000 | 0.040\% | 0.024\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 21 | 0.00000 | 0.040\% | 0.024\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 93 | 0.00000 | 0.040\% | 0.024\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 292 | 0.00000 | 0.040\% | 0.024\% | 0.1 | 0.1 | 0\% | 0\% |
| 26 | 0 | 592 | 0.00000 | 0.040\% | 0.024\% | 0.2 | 0.1 | 0\% | 0\% |
| 27 | 1 | 912 | 0.00110 | 0.040\% | 0.024\% | 0.4 | 0.2 | 274\% | 457\% |
| 28 | 0 | 1,186 | 0.00000 | 0.040\% | 0.024\% | 0.5 | 0.3 | 0\% | 0\% |
| 29 | 1 | 1,402 | 0.00071 | 0.040\% | 0.024\% | 0.6 | 0.3 | 178\% | 297\% |
| 30 | 0 | 1,558 | 0.00000 | 0.040\% | 0.024\% | 0.6 | 0.4 | 0\% | 0\% |
| 31 | 1 | 1,739 | 0.00058 | 0.040\% | 0.024\% | 0.7 | 0.4 | 144\% | 240\% |
| 32 | 2 | 1,904 | 0.00105 | 0.040\% | 0.024\% | 0.8 | 0.5 | 263\% | 438\% |
| 33 | 1 | 1,959 | 0.00051 | 0.040\% | 0.024\% | 0.8 | 0.5 | 128\% | 213\% |
| 34 | 0 | 1,920 | 0.00000 | 0.040\% | 0.024\% | 0.8 | 0.5 | 0\% | 0\% |
| 35 | 1 | 1,875 | 0.00053 | 0.040\% | 0.024\% | 0.8 | 0.5 | 133\% | 222\% |
| 36 | 1 | 1,815 | 0.00055 | 0.042\% | 0.025\% | 0.8 | 0.5 | 131\% | 219\% |
| 37 | 0 | 1,770 | 0.00000 | 0.044\% | 0.026\% | 0.8 | 0.5 | 0\% | 0\% |
| 38 | 0 | 1,804 | 0.00000 | 0.046\% | 0.028\% | 0.8 | 0.5 | 0\% | 0\% |
| 39 | 0 | 1,768 | 0.00000 | 0.048\% | 0.029\% | 0.8 | 0.5 | 0\% | 0\% |
| 40 | 1 | 1,709 | 0.00059 | 0.050\% | 0.030\% | 0.9 | 0.5 | 117\% | 195\% |
| 41 | 1 | 1,603 | 0.00062 | 0.060\% | 0.036\% | 1.0 | 0.6 | 104\% | 173\% |
| 42 | 1 | 1,529 | 0.00065 | 0.070\% | 0.042\% | 1.1 | 0.6 | 93\% | 156\% |
| 43 | 1 | 1,432 | 0.00070 | 0.080\% | 0.048\% | 1.1 | 0.7 | 87\% | 145\% |
| 44 | 0 | 1,403 | 0.00000 | 0.090\% | 0.054\% | 1.3 | 0.8 | 0\% | 0\% |
| 45 | 0 | 1,456 | 0.00000 | 0.100\% | 0.060\% | 1.5 | 0.9 | 0\% | 0\% |
| 46 | 0 | 1,447 | 0.00000 | 0.110\% | 0.066\% | 1.6 | 1.0 | 0\% | 0\% |
| 47 | 1 | 1,390 | 0.00072 | 0.120\% | 0.072\% | 1.7 | 1.0 | 60\% | 100\% |
| 48 | 2 | 1,269 | 0.00158 | 0.130\% | 0.078\% | 1.6 | 1.0 | 121\% | 202\% |
| 49 | 1 | 1,116 | 0.00090 | 0.140\% | 0.084\% | 1.6 | 0.9 | 64\% | 107\% |
| 50 | 0 | 976 | 0.00000 | 0.150\% | 0.090\% | 1.5 | 0.9 | 0\% | 0\% |
| 51 | 0 | 936 | 0.00000 | 0.160\% | 0.096\% | 1.5 | 0.9 | 0\% | 0\% |
| 52 | 0 | 868 | 0.00000 | 0.170\% | 0.102\% | 1.5 | 0.9 | 0\% | 0\% |
| 53 | 0 | 769 | 0.00000 | 0.180\% | 0.108\% | 1.4 | 0.8 | 0\% | 0\% |
| 54 | 0 | 686 | 0.00000 | 0.190\% | 0.114\% | 1.3 | 0.8 | 0\% | 0\% |
| 55 | 0 | 556 | 0.00000 | 0.200\% | 0.120\% | 1.1 | 0.7 | 0\% | 0\% |
| 56 | 0 | 437 | 0.00000 | 0.220\% | 0.132\% | 1.0 | 0.6 | 0\% | 0\% |
| 57 | 0 | 343 | 0.00000 | 0.240\% | 0.144\% | 0.8 | 0.5 | 0\% | 0\% |
| 58 | 0 | 251 | 0.00000 | 0.260\% | 0.156\% | 0.7 | 0.4 | 0\% | 0\% |
| 59 | 0 | 170 | 0.00000 | 0.280\% | 0.168\% | 0.5 | 0.3 | 0\% | 0\% |
| 60 | 0 | 107 | 0.00000 | 0.300\% | 0.180\% | 0.3 | 0.2 | 0\% | 0\% |
| 61 | 0 | 78 | 0.00000 | 0.320\% | 0.192\% | 0.2 | 0.1 | 0\% | 0\% |
| 62 | 0 | 52 | 0.00000 | 0.340\% | 0.204\% | 0.2 | 0.1 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 0.340\% | 0.204\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.340\% | 0.204\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.340\% | 0.204\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.340\% | 0.204\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.340\% | 0.204\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.340\% | 0.204\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.340\% | 0.204\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.340\% | 0.204\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.340\% | 0.204\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.340\% | 0.204\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.340\% | 0.204\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.340\% | 0.204\% | 0 | 0 | 0\% | 0\% |
| Total | 16 | 43,199 |  |  |  | 34.5 | 20.7 | 46\% | 77\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS <br> MEN

|  | TABLE 5A GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Actual Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | $\begin{gathered} \text { Proposed } \\ (8) /(\mathbf{3}) \\ \hline \end{gathered}$ | Expected | Proposed | Expected $(2) /(7)$ | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 120 | 0.00000 | 0.040\% | 0.024\% | 0.0 | 0.0 | 0\% | 0\% |
| 25-29 | 2 | 4,384 | 0.00046 | 0.040\% | 0.024\% | 1.8 | 1.1 | 114\% | 190\% |
| 30-34 | 4 | 9,080 | 0.00044 | 0.040\% | 0.024\% | 3.6 | 2.2 | 110\% | 184\% |
| 35-39 | 2 | 9,032 | 0.00022 | 0.044\% | 0.026\% | 4.0 | 2.4 | 50\% | 84\% |
| 40-44 | 4 | 7,676 | 0.00052 | 0.069\% | 0.041\% | 5.3 | 3.2 | 76\% | 126\% |
| 45-49 | 4 | 6,678 | 0.00060 | 0.119\% | 0.071\% | 7.9 | 4.8 | 50\% | 84\% |
| 50-54 | 0 | 4,235 | 0.00000 | 0.168\% | 0.101\% | 7.1 | 4.3 | 0\% | 0\% |
| 55-59 | 0 | 1,757 | 0.00000 | 0.229\% | 0.137\% | 4.0 | 2.4 | 0\% | 0\% |
| 60-64 | 0 | 237 | 0.00000 | 0.315\% | 0.189\% | 0.7 | 0.4 | 0\% | 0\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 16 | 43,199 |  |  |  | 34.5 | 20.7 | 46\% | 77\% |

# NEW YORK CITY FIRE DEPARTMENT PENSION FUND ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN 

| Age | TABLE 5A |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 4 | 0.00000 | 0.040\% | 0.024\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 34 | 0.00000 | 0.040\% | 0.024\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 178 | 0.00000 | 0.040\% | 0.024\% | 0.1 | 0.0 | 0\% | 0\% |
| 23 | 0 | 534 | 0.00000 | 0.040\% | 0.024\% | 0.2 | 0.1 | 0\% | 0\% |
| 24 | 0 | 1,066 | 0.00000 | 0.040\% | 0.024\% | 0.4 | 0.3 | 0\% | 0\% |
| 25 | 0 | 1,653 | 0.00000 | 0.040\% | 0.024\% | 0.7 | 0.4 | 0\% | 0\% |
| 26 | 0 | 2,275 | 0.00000 | 0.040\% | 0.024\% | 0.9 | 0.5 | 0\% | 0\% |
| 27 | 1 | 2,871 | 0.00035 | 0.040\% | 0.024\% | 1.1 | 0.7 | 87\% | 145\% |
| 28 | 1 | 3,398 | 0.00029 | 0.040\% | 0.024\% | 1.4 | 0.8 | 74\% | 123\% |
| 29 | 3 | 3,755 | 0.00080 | 0.040\% | 0.024\% | 1.5 | 0.9 | 200\% | 333\% |
| 30 | 2 | 4,047 | 0.00049 | 0.040\% | 0.024\% | 1.6 | 1.0 | 124\% | 206\% |
| 31 | 2 | 4,348 | 0.00046 | 0.040\% | 0.024\% | 1.7 | 1.0 | 115\% | 192\% |
| 32 | 2 | 4,586 | 0.00044 | 0.040\% | 0.024\% | 1.8 | 1.1 | 109\% | 182\% |
| 33 | 3 | 4,695 | 0.00064 | 0.040\% | 0.024\% | 1.9 | 1.1 | 160\% | 266\% |
| 34 | 0 | 4,743 | 0.00000 | 0.040\% | 0.024\% | 1.9 | 1.1 | 0\% | 0\% |
| 35 | 2 | 4,634 | 0.00043 | 0.040\% | 0.024\% | 1.9 | 1.1 | 108\% | 180\% |
| 36 | 2 | 4,550 | 0.00044 | 0.042\% | 0.025\% | 1.9 | 1.1 | 105\% | 174\% |
| 37 | 2 | 4,450 | 0.00045 | 0.044\% | 0.026\% | 2.0 | 1.2 | 102\% | 170\% |
| 38 | 2 | 4,453 | 0.00045 | 0.046\% | 0.028\% | 2.0 | 1.2 | 98\% | 163\% |
| 39 | 1 | 4,443 | 0.00023 | 0.048\% | 0.029\% | 2.1 | 1.3 | 47\% | 78\% |
| 40 | 2 | 4,444 | 0.00045 | 0.050\% | 0.030\% | 2.2 | 1.3 | 90\% | 150\% |
| 41 | 1 | 4,332 | 0.00023 | 0.060\% | 0.036\% | 2.6 | 1.6 | 38\% | 64\% |
| 42 | 2 | 4,155 | 0.00048 | 0.070\% | 0.042\% | 2.9 | 1.7 | 69\% | 115\% |
| 43 | 2 | 3,973 | 0.00050 | 0.080\% | 0.048\% | 3.2 | 1.9 | 63\% | 105\% |
| 44 | 1 | 3,841 | 0.00026 | 0.090\% | 0.054\% | 3.5 | 2.1 | 29\% | 48\% |
| 45 | 1 | 3,793 | 0.00026 | 0.100\% | 0.060\% | 3.8 | 2.3 | 26\% | 44\% |
| 46 | 2 | 3,637 | 0.00055 | 0.110\% | 0.066\% | 4.0 | 2.4 | 50\% | 83\% |
| 47 | 2 | 3,455 | 0.00058 | 0.120\% | 0.072\% | 4.1 | 2.5 | 48\% | 80\% |
| 48 | 2 | 3,199 | 0.00063 | 0.130\% | 0.078\% | 4.2 | 2.5 | 48\% | 80\% |
| 49 | 3 | 2,885 | 0.00104 | 0.140\% | 0.084\% | 4.0 | 2.4 | 74\% | 124\% |
| 50 | 0 | 2,540 | 0.00000 | 0.150\% | 0.090\% | 3.8 | 2.3 | 0\% | 0\% |
| 51 | 3 | 2,217 | 0.00135 | 0.160\% | 0.096\% | 3.5 | 2.1 | 85\% | 141\% |
| 52 | 0 | 1,899 | 0.00000 | 0.170\% | 0.102\% | 3.2 | 1.9 | 0\% | 0\% |
| 53 | 3 | 1,554 | 0.00193 | 0.180\% | 0.108\% | 2.8 | 1.7 | 107\% | 179\% |
| 54 | 1 | 1,273 | 0.00079 | 0.190\% | 0.114\% | 2.4 | 1.5 | 41\% | 69\% |
| 55 | 1 | 989 | 0.00101 | 0.200\% | 0.120\% | 2.0 | 1.2 | 51\% | 84\% |
| 56 | 1 | 743 | 0.00135 | 0.220\% | 0.132\% | 1.6 | 1.0 | 61\% | 102\% |
| 57 | 1 | 572 | 0.00175 | 0.240\% | 0.144\% | 1.4 | 0.8 | 73\% | 121\% |
| 58 | 0 | 415 | 0.00000 | 0.260\% | 0.156\% | 1.1 | 0.6 | 0\% | 0\% |
| 59 | 0 | 281 | 0.00000 | 0.280\% | 0.168\% | 0.8 | 0.5 | 0\% | 0\% |
| 60 | 0 | 197 | 0.00000 | 0.300\% | 0.180\% | 0.6 | 0.4 | 0\% | 0\% |
| 61 | 0 | 152 | 0.00000 | 0.320\% | 0.192\% | 0.5 | 0.3 | 0\% | 0\% |
| 62 | 0 | 103 | 0.00000 | 0.340\% | 0.204\% | 0.4 | 0.2 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 0.340\% | 0.204\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.340\% | 0.204\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.340\% | 0.204\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.340\% | 0.204\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.340\% | 0.204\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.340\% | 0.204\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.340\% | 0.204\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.340\% | 0.204\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.340\% | 0.204\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.340\% | 0.204\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.340\% | 0.204\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.340\% | 0.204\% | 0 | 0 | 0\% | 0\% |
| Total | 51 | 111,366 |  |  |  | 83.8 | 50.3 | 61\% | 101\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS <br> MEN



NEW YORK CITY FIRE DEPARTMENT PENSION FUND
ORDINARY MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Plan <br> Year | TABLE 5B |  |  | 10-YEAR PE | Mortality Rate |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending <br> June 30, | Life Years Exposed | Actual <br> Deaths | Expected Deaths | Actual / <br> Expected | Actual $(3) /(2)$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 10,892 | 6 | 7.8 | 77\% | 0.055\% | 0.072\% |
| 2005 | 11,316 | 5 | 8.1 | 62\% | 0.044\% | 0.071\% |
| 2006 | 11,479 | 8 | 8.2 | 98\% | 0.070\% | 0.071\% |
| 2007 | 11,607 | 3 | 8.4 | 36\% | 0.026\% | 0.072\% |
| 2008 | 11,518 | 5 | 8.4 | 60\% | 0.043\% | 0.073\% |
| 2009 | 11,574 | 7 | 8.6 | 82\% | 0.060\% | 0.074\% |
| 2010 | 11,445 | 4 | 8.7 | 46\% | 0.035\% | 0.076\% |
| 2011 | 11,058 | 6 | 8.7 | 69\% | 0.054\% | 0.078\% |
| 2012 | 10,620 | 7 | 8.6 | 81\% | 0.066\% | 0.081\% |
| 2013 | 10,240 | 0 | 8.7 | 0\% | 0.000\% | 0.085\% |
| Total | 111,749 | 51 | 84.0 | 61\% | 0.046\% | 0.075\% |

*The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 20 and over 75.

# NEW YORK CITY FIRE DEPARTMENT PENSION FUND ACCIDENTAL MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN 

| Age | TABLE 6A |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $\text { (3) } \times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.020\% | 0.015\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.020\% | 0.015\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 6 | 0.00000 | 0.020\% | 0.015\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 21 | 0.00000 | 0.020\% | 0.015\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 93 | 0.00000 | 0.020\% | 0.015\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 292 | 0.00000 | 0.020\% | 0.015\% | 0.1 | 0.0 | 0\% | 0\% |
| 26 | 0 | 594 | 0.00000 | 0.020\% | 0.015\% | 0.1 | 0.1 | 0\% | 0\% |
| 27 | 0 | 914 | 0.00000 | 0.020\% | 0.015\% | 0.2 | 0.1 | 0\% | 0\% |
| 28 | 0 | 1,190 | 0.00000 | 0.020\% | 0.015\% | 0.2 | 0.2 | 0\% | 0\% |
| 29 | 0 | 1,408 | 0.00000 | 0.020\% | 0.015\% | 0.3 | 0.2 | 0\% | 0\% |
| 30 | 0 | 1,565 | 0.00000 | 0.020\% | 0.015\% | 0.3 | 0.2 | 0\% | 0\% |
| 31 | 0 | 1,748 | 0.00000 | 0.020\% | 0.015\% | 0.3 | 0.3 | 0\% | 0\% |
| 32 | 0 | 1,918 | 0.00000 | 0.020\% | 0.015\% | 0.4 | 0.3 | 0\% | 0\% |
| 33 | 0 | 1,973 | 0.00000 | 0.020\% | 0.015\% | 0.4 | 0.3 | 0\% | 0\% |
| 34 | 0 | 1,938 | 0.00000 | 0.020\% | 0.015\% | 0.4 | 0.3 | 0\% | 0\% |
| 35 | 0 | 1,890 | 0.00000 | 0.020\% | 0.015\% | 0.4 | 0.3 | 0\% | 0\% |
| 36 | 0 | 1,826 | 0.00000 | 0.020\% | 0.015\% | 0.4 | 0.3 | 0\% | 0\% |
| 37 | 1 | 1,780 | 0.00056 | 0.020\% | 0.015\% | 0.4 | 0.3 | 281\% | 375\% |
| 38 | 0 | 1,810 | 0.00000 | 0.020\% | 0.015\% | 0.4 | 0.3 | 0\% | 0\% |
| 39 | 0 | 1,774 | 0.00000 | 0.020\% | 0.015\% | 0.4 | 0.3 | 0\% | 0\% |
| 40 | 0 | 1,716 | 0.00000 | 0.020\% | 0.015\% | 0.3 | 0.3 | 0\% | 0\% |
| 41 | 0 | 1,608 | 0.00000 | 0.026\% | 0.020\% | 0.4 | 0.3 | 0\% | 0\% |
| 42 | 1 | 1,532 | 0.00065 | 0.032\% | 0.024\% | 0.5 | 0.4 | 204\% | 272\% |
| 43 | 0 | 1,435 | 0.00000 | 0.038\% | 0.029\% | 0.5 | 0.4 | 0\% | 0\% |
| 44 | 2 | 1,405 | 0.00142 | 0.044\% | 0.033\% | 0.6 | 0.5 | 324\% | 431\% |
| 45 | 0 | 1,458 | 0.00000 | 0.050\% | 0.038\% | 0.7 | 0.5 | 0\% | 0\% |
| 46 | 1 | 1,448 | 0.00069 | 0.060\% | 0.045\% | 0.9 | 0.7 | 115\% | 153\% |
| 47 | 1 | 1,391 | 0.00072 | 0.070\% | 0.053\% | 1.0 | 0.7 | 103\% | 137\% |
| 48 | 1 | 1,269 | 0.00079 | 0.080\% | 0.060\% | 1.0 | 0.8 | 99\% | 131\% |
| 49 | 0 | 1,116 | 0.00000 | 0.090\% | 0.068\% | 1.0 | 0.8 | 0\% | 0\% |
| 50 | 2 | 977 | 0.00205 | 0.100\% | 0.075\% | 1.0 | 0.7 | 205\% | 273\% |
| 51 | 0 | 938 | 0.00000 | 0.120\% | 0.090\% | 1.1 | 0.8 | 0\% | 0\% |
| 52 | 1 | 870 | 0.00115 | 0.140\% | 0.105\% | 1.2 | 0.9 | 82\% | 109\% |
| 53 | 1 | 771 | 0.00130 | 0.160\% | 0.120\% | 1.2 | 0.9 | 81\% | 108\% |
| 54 | 2 | 686 | 0.00292 | 0.180\% | 0.135\% | 1.2 | 0.9 | 162\% | 216\% |
| 55 | 0 | 556 | 0.00000 | 0.200\% | 0.150\% | 1.1 | 0.8 | 0\% | 0\% |
| 56 | 0 | 437 | 0.00000 | 0.220\% | 0.165\% | 1.0 | 0.7 | 0\% | 0\% |
| 57 | 0 | 343 | 0.00000 | 0.240\% | 0.180\% | 0.8 | 0.6 | 0\% | 0\% |
| 58 | 0 | 252 | 0.00000 | 0.260\% | 0.195\% | 0.7 | 0.5 | 0\% | 0\% |
| 59 | 0 | 172 | 0.00000 | 0.280\% | 0.210\% | 0.5 | 0.4 | 0\% | 0\% |
| 60 | 0 | 109 | 0.00000 | 0.300\% | 0.225\% | 0.3 | 0.2 | 0\% | 0\% |
| 61 | 0 | 80 | 0.00000 | 0.400\% | 0.300\% | 0.3 | 0.2 | 0\% | 0\% |
| 62 | 0 | 54 | 0.00000 | 0.500\% | 0.375\% | 0.3 | 0.2 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 0.500\% | 0.375\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.500\% | 0.375\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.500\% | 0.375\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.500\% | 0.375\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.500\% | 0.375\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.500\% | 0.375\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.500\% | 0.375\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.500\% | 0.375\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.500\% | 0.375\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.500\% | 0.375\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.500\% | 0.375\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.500\% | 0.375\% | 0 | 0 | 0\% | 0\% |
| Total | 13 | 43,363 |  |  |  | 22.3 | 16.7 | 58\% | 78\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND

## ACCIDENTAL MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Age | TABLE 6A GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual <br> Deaths | Total <br> Exposed | Actual Rate $\qquad$ | Expected $(7) /(3)$ | Proposed $(\mathbf{8}) /(\mathbf{3})$ | Expected | Proposed | Expected $(2) /(7)$ | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 120 | 0.00000 | 0.020\% | 0.015\% | 0.0 | 0.0 | 0\% | 0\% |
| 25-29 | 0 | 4,398 | 0.00000 | 0.020\% | 0.015\% | 0.9 | 0.7 | 0\% | 0\% |
| 30-34 | 0 | 9,142 | 0.00000 | 0.020\% | 0.015\% | 1.8 | 1.4 | 0\% | 0\% |
| 35-39 | 1 | 9,080 | 0.00011 | 0.020\% | 0.015\% | 1.8 | 1.4 | 55\% | 73\% |
| 40-44 | 3 | 7,696 | 0.00039 | 0.031\% | 0.024\% | 2.4 | 1.8 | 124\% | 166\% |
| 45-49 | 3 | 6,682 | 0.00045 | 0.069\% | 0.052\% | 4.6 | 3.4 | 65\% | 87\% |
| 50-54 | 6 | 4,242 | 0.00141 | 0.136\% | 0.102\% | 5.8 | 4.3 | 104\% | 138\% |
| 55-59 | 0 | 1,760 | 0.00000 | 0.229\% | 0.172\% | 4.0 | 3.0 | 0\% | 0\% |
| 60-64 | 0 | 243 | 0.00000 | 0.377\% | 0.283\% | 0.9 | 0.7 | 0\% | 0\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 13 | 43,363 |  |  |  | 22.3 | 16.7 | 58\% | 78\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND ACCIDENTAL MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Age | TABLE 6A |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual <br> Deaths | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 4 | 0.00000 | 0.020\% | 0.015\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 34 | 0.00000 | 0.020\% | 0.015\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 180 | 0.00000 | 0.020\% | 0.015\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 1 | 537 | 0.00186 | 0.020\% | 0.015\% | 0.1 | 0.1 | 931\% | 1241\% |
| 24 | 0 | 1,069 | 0.00000 | 0.020\% | 0.015\% | 0.2 | 0.2 | 0\% | 0\% |
| 25 | 1 | 1,659 | 0.00060 | 0.020\% | 0.015\% | 0.3 | 0.2 | 301\% | 402\% |
| 26 | 0 | 2,282 | 0.00000 | 0.020\% | 0.015\% | 0.5 | 0.3 | 0\% | 0\% |
| 27 | 0 | 2,881 | 0.00000 | 0.020\% | 0.015\% | 0.6 | 0.4 | 0\% | 0\% |
| 28 | 0 | 3,412 | 0.00000 | 0.020\% | 0.015\% | 0.7 | 0.5 | 0\% | 0\% |
| 29 | 0 | 3,773 | 0.00000 | 0.020\% | 0.015\% | 0.8 | 0.6 | 0\% | 0\% |
| 30 | 1 | 4,067 | 0.00025 | 0.020\% | 0.015\% | 0.8 | 0.6 | 123\% | 164\% |
| 31 | 0 | 4,371 | 0.00000 | 0.020\% | 0.015\% | 0.9 | 0.7 | 0\% | 0\% |
| 32 | 0 | 4,610 | 0.00000 | 0.020\% | 0.015\% | 0.9 | 0.7 | 0\% | 0\% |
| 33 | 0 | 4,721 | 0.00000 | 0.020\% | 0.015\% | 0.9 | 0.7 | 0\% | 0\% |
| 34 | 1 | 4,770 | 0.00021 | 0.020\% | 0.015\% | 1.0 | 0.7 | 105\% | 140\% |
| 35 | 1 | 4,659 | 0.00021 | 0.020\% | 0.015\% | 0.9 | 0.7 | 107\% | 143\% |
| 36 | 0 | 4,569 | 0.00000 | 0.020\% | 0.015\% | 0.9 | 0.7 | 0\% | 0\% |
| 37 | 3 | 4,467 | 0.00067 | 0.020\% | 0.015\% | 0.9 | 0.7 | 336\% | 448\% |
| 38 | 2 | 4,464 | 0.00045 | 0.020\% | 0.015\% | 0.9 | 0.7 | 224\% | 299\% |
| 39 | 0 | 4,454 | 0.00000 | 0.020\% | 0.015\% | 0.9 | 0.7 | 0\% | 0\% |
| 40 | 1 | 4,454 | 0.00022 | 0.020\% | 0.015\% | 0.9 | 0.7 | 112\% | 150\% |
| 41 | 1 | 4,341 | 0.00023 | 0.026\% | 0.020\% | 1.1 | 0.8 | 89\% | 118\% |
| 42 | 2 | 4,161 | 0.00048 | 0.032\% | 0.024\% | 1.3 | 1.0 | 150\% | 200\% |
| 43 | 0 | 3,978 | 0.00000 | 0.038\% | 0.029\% | 1.5 | 1.1 | 0\% | 0\% |
| 44 | 3 | 3,844 | 0.00078 | 0.044\% | 0.033\% | 1.7 | 1.3 | 177\% | 236\% |
| 45 | 1 | 3,799 | 0.00026 | 0.050\% | 0.038\% | 1.9 | 1.4 | 53\% | 70\% |
| 46 | 4 | 3,644 | 0.00110 | 0.060\% | 0.045\% | 2.2 | 1.6 | 183\% | 244\% |
| 47 | 1 | 3,463 | 0.00029 | 0.070\% | 0.053\% | 2.4 | 1.8 | 41\% | 55\% |
| 48 | 1 | 3,204 | 0.00031 | 0.080\% | 0.060\% | 2.6 | 1.9 | 39\% | 52\% |
| 49 | 1 | 2,890 | 0.00035 | 0.090\% | 0.068\% | 2.6 | 2.0 | 38\% | 51\% |
| 50 | 2 | 2,545 | 0.00079 | 0.100\% | 0.075\% | 2.5 | 1.9 | 79\% | 105\% |
| 51 | 2 | 2,221 | 0.00090 | 0.120\% | 0.090\% | 2.7 | 2.0 | 75\% | 100\% |
| 52 | 3 | 1,905 | 0.00157 | 0.140\% | 0.105\% | 2.7 | 2.0 | 112\% | 150\% |
| 53 | 2 | 1,561 | 0.00128 | 0.160\% | 0.120\% | 2.5 | 1.9 | 80\% | 107\% |
| 54 | 3 | 1,277 | 0.00235 | 0.180\% | 0.135\% | 2.3 | 1.7 | 131\% | 174\% |
| 55 | 1 | 993 | 0.00101 | 0.200\% | 0.150\% | 2.0 | 1.5 | 50\% | 67\% |
| 56 | 0 | 747 | 0.00000 | 0.220\% | 0.165\% | 1.6 | 1.2 | 0\% | 0\% |
| 57 | 0 | 575 | 0.00000 | 0.240\% | 0.180\% | 1.4 | 1.0 | 0\% | 0\% |
| 58 | 0 | 418 | 0.00000 | 0.260\% | 0.195\% | 1.1 | 0.8 | 0\% | 0\% |
| 59 | 0 | 284 | 0.00000 | 0.280\% | 0.210\% | 0.8 | 0.6 | 0\% | 0\% |
| 60 | 0 | 200 | 0.00000 | 0.300\% | 0.225\% | 0.6 | 0.5 | 0\% | 0\% |
| 61 | 0 | 155 | 0.00000 | 0.400\% | 0.300\% | 0.6 | 0.5 | 0\% | 0\% |
| 62 | 0 | 105 | 0.00000 | 0.500\% | 0.375\% | 0.5 | 0.4 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 0.500\% | 0.375\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 0.500\% | 0.375\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 0.500\% | 0.375\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 0.500\% | 0.375\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 0.500\% | 0.375\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 0.500\% | 0.375\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 0.500\% | 0.375\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 0.500\% | 0.375\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 0.500\% | 0.375\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 0.500\% | 0.375\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 0.500\% | 0.375\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 0.500\% | 0.375\% | 0 | 0 | 0\% | 0\% |
| Total | 38 | 111,747 |  |  |  | 51.7 | 38.8 | 73\% | 98\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND

## ACCIDENTAL MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Age | TABLE 6A GROUPED |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Deaths |  | Actual/Expected |  |
|  | Actual Deaths | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed $(8) /(3)$ | Expected | Proposed | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 1 | 1,824 | 0.00055 | 0.020\% | 0.015\% | 0.4 | 0.3 | 274\% | 365\% |
| 25-29 | 1 | 14,007 | 0.00007 | 0.020\% | 0.015\% | 2.8 | 2.1 | 36\% | 48\% |
| 30-34 | 2 | 22,539 | 0.00009 | 0.020\% | 0.015\% | 4.5 | 3.4 | 44\% | 59\% |
| 35-39 | 6 | 22,613 | 0.00027 | 0.020\% | 0.015\% | 4.5 | 3.4 | 133\% | 177\% |
| 40-44 | 7 | 20,778 | 0.00034 | 0.032\% | 0.024\% | 6.6 | 4.9 | 107\% | 142\% |
| 45-49 | 8 | 17,000 | 0.00047 | 0.069\% | 0.052\% | 11.7 | 8.8 | 69\% | 91\% |
| 50-54 | 12 | 9,509 | 0.00126 | 0.133\% | 0.100\% | 12.7 | 9.5 | 95\% | 126\% |
| 55-59 | 1 | 3,017 | 0.00033 | 0.228\% | 0.171\% | 6.9 | 5.2 | 15\% | 19\% |
| 60-64 | 0 | 460 | 0.00000 | 0.379\% | 0.285\% | 1.7 | 1.3 | 0\% | 0\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 38 | 111,747 |  |  |  | 51.7 | 38.8 | 73\% | 98\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND

 ACCIDENTAL MORTALITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN| Plan <br> Year <br> Ending <br> June 30, | TABLE 6B <br> Life Years Exposed | Actual <br> Deaths | Expected Deaths | 10-YEAR PERIOD ENDING 6/30/2013 Mortality Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / <br> Expected | Actual $(3) /(2)$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 10,892 | 6 | 4.6 | 132\% | 0.055\% | 0.042\% |
| 2005 | 11,316 | 4 | 4.7 | 85\% | 0.035\% | 0.042\% |
| 2006 | 11,479 | 3 | 4.8 | 62\% | 0.026\% | 0.042\% |
| 2007 | 11,607 | 5 | 5.0 | 100\% | 0.043\% | 0.043\% |
| 2008 | 11,518 | 5 | 5.1 | 99\% | 0.043\% | 0.044\% |
| 2009 | 11,574 | 2 | 5.3 | 38\% | 0.017\% | 0.046\% |
| 2010 | 11,445 | 5 | 5.4 | 92\% | 0.044\% | 0.047\% |
| 2011 | 11,058 | 1 | 5.5 | 18\% | 0.009\% | 0.050\% |
| 2012 | 10,620 | 3 | 5.6 | 54\% | 0.028\% | 0.053\% |
| 2013 | 10,240 | 4 | 5.8 | 70\% | 0.039\% | 0.056\% |
| Total | 111,749 | 38 | 51.7 | 73\% | 0.034\% | 0.046\% |

*The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 20 and over 75.

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Age | TABLE 7A |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Disabilities |  | Actual/Expected |  |
|  | Actual | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed <br> (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 1 | 0.0000 | 0.01\% | 0.01\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 1 | 0.0000 | 0.01\% | 0.01\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 21 | 0.0000 | 0.01\% | 0.01\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 186 | 0.0000 | 0.01\% | 0.01\% | 0.0 | 0.0 | 0\% | 0\% |
| 24 | 0 | 467 | 0.0000 | 0.01\% | 0.01\% | 0.0 | 0.0 | 0\% | 0\% |
| 25 | 0 | 783 | 0.0000 | 0.01\% | 0.01\% | 0.1 | 0.1 | 0\% | 0\% |
| 26 | 0 | 1,062 | 0.0000 | 0.01\% | 0.01\% | 0.1 | 0.1 | 0\% | 0\% |
| 27 | 0 | 1,301 | 0.0000 | 0.02\% | 0.02\% | 0.3 | 0.2 | 0\% | 0\% |
| 28 | 0 | 1,480 | 0.0000 | 0.03\% | 0.02\% | 0.4 | 0.4 | 0\% | 0\% |
| 29 | 0 | 1,668 | 0.0000 | 0.04\% | 0.03\% | 0.7 | 0.5 | 0\% | 0\% |
| 30 | 1 | 1,869 | 0.0005 | 0.05\% | 0.04\% | 0.9 | 0.7 | 107\% | 134\% |
| 31 | 0 | 1,968 | 0.0000 | 0.06\% | 0.05\% | 1.2 | 0.9 | 0\% | 0\% |
| 32 | 0 | 1,951 | 0.0000 | 0.07\% | 0.06\% | 1.4 | 1.1 | 0\% | 0\% |
| 33 | 0 | 1,885 | 0.0000 | 0.08\% | 0.06\% | 1.5 | 1.2 | 0\% | 0\% |
| 34 | 0 | 1,833 | 0.0000 | 0.09\% | 0.07\% | 1.6 | 1.3 | 0\% | 0\% |
| 35 | 0 | 1,821 | 0.0000 | 0.10\% | 0.08\% | 1.8 | 1.5 | 0\% | 0\% |
| 36 | 0 | 1,864 | 0.0000 | 0.11\% | 0.09\% | 2.1 | 1.6 | 0\% | 0\% |
| 37 | 0 | 1,849 | 0.0000 | 0.12\% | 0.10\% | 2.2 | 1.8 | 0\% | 0\% |
| 38 | 0 | 1,794 | 0.0000 | 0.13\% | 0.10\% | 2.3 | 1.9 | 0\% | 0\% |
| 39 | 0 | 1,701 | 0.0000 | 0.14\% | 0.11\% | 2.4 | 1.9 | 0\% | 0\% |
| 40 | 2 | 1,633 | 0.0012 | 0.15\% | 0.12\% | 2.4 | 2.0 | 82\% | 102\% |
| 41 | 1 | 1,529 | 0.0007 | 0.16\% | 0.13\% | 2.4 | 2.0 | 41\% | 51\% |
| 42 | 0 | 1,547 | 0.0000 | 0.17\% | 0.14\% | 2.6 | 2.1 | 0\% | 0\% |
| 43 | 1 | 1,604 | 0.0006 | 0.18\% | 0.14\% | 2.9 | 2.3 | 35\% | 43\% |
| 44 | 1 | 1,590 | 0.0006 | 0.19\% | 0.15\% | 3.0 | 2.4 | 33\% | 41\% |
| 45 | 0 | 1,558 | 0.0000 | 0.20\% | 0.16\% | 3.1 | 2.5 | 0\% | 0\% |
| 46 | 0 | 1,427 | 0.0000 | 0.22\% | 0.18\% | 3.1 | 2.5 | 0\% | 0\% |
| 47 | 0 | 1,281 | 0.0000 | 0.24\% | 0.19\% | 3.1 | 2.5 | 0\% | 0\% |
| 48 | 0 | 1,155 | 0.0000 | 0.26\% | 0.21\% | 3.0 | 2.4 | 0\% | 0\% |
| 49 | 0 | 1,103 | 0.0000 | 0.28\% | 0.22\% | 3.1 | 2.5 | 0\% | 0\% |
| 50 | 0 | 1,051 | 0.0000 | 0.30\% | 0.24\% | 3.2 | 2.5 | 0\% | 0\% |
| 51 | 0 | 991 | 0.0000 | 0.44\% | 0.35\% | 4.4 | 3.5 | 0\% | 0\% |
| 52 | 0 | 869 | 0.0000 | 0.58\% | 0.46\% | 5.0 | 4.0 | 0\% | 0\% |
| 53 | 0 | 706 | 0.0000 | 0.72\% | 0.58\% | 5.1 | 4.1 | 0\% | 0\% |
| 54 | 0 | 579 | 0.0000 | 0.86\% | 0.69\% | 5.0 | 4.0 | 0\% | 0\% |
| 55 | 0 | 454 | 0.0000 | 1.00\% | 0.80\% | 4.5 | 3.6 | 0\% | 0\% |
| 56 | 0 | 339 | 0.0000 | 2.00\% | 1.60\% | 6.8 | 5.4 | 0\% | 0\% |
| 57 | 0 | 236 | 0.0000 | 3.00\% | 2.40\% | 7.1 | 5.7 | 0\% | 0\% |
| 58 | 0 | 151 | 0.0000 | 4.00\% | 3.20\% | 6.0 | 4.8 | 0\% | 0\% |
| 59 | 0 | 106 | 0.0000 | 5.00\% | 4.00\% | 5.3 | 4.2 | 0\% | 0\% |
| 60 | 1 | 78 | 0.0128 | 6.00\% | 4.80\% | 4.7 | 3.7 | 21\% | 27\% |
| 61 | 0 | 62 | 0.0000 | 8.00\% | 6.40\% | 5.0 | 4.0 | 0\% | 0\% |
| 62 | 0 | 41 | 0.0000 | 10.00\% | 8.00\% | 4.1 | 3.3 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 10.00\% | 8.00\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 10.00\% | 8.00\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 10.00\% | 8.00\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 10.00\% | 8.00\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 10.00\% | 8.00\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 10.00\% | 8.00\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 10.00\% | 8.00\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 10.00\% | 8.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 10.00\% | 8.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 10.00\% | 8.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 10.00\% | 8.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 10.00\% | 8.00\% | 0 | 0 | 0\% | 0\% |
| Total | 7 | 45,595 |  |  |  | 114.0 | 91.2 | 6\% | 8\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN ELIGIBLE FOR WTC BENEFITS

| Age | TABLE 8A |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Disabilities |  | Actual/Expected |  |
|  | Actual | Total Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected $(3) \times(5)$ | Proposed $(3) \times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.05\% | 0.16\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.05\% | 0.16\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 0 | N/A | 0.05\% | 0.16\% | 0 | 0 | 0\% | 0\% |
| 23 | 0 | 0 | N/A | 0.05\% | 0.16\% | 0 | 0 | 0\% | 0\% |
| 24 | 0 | 0 | N/A | 0.05\% | 0.16\% | 0 | 0 | 0\% | 0\% |
| 25 | 0 | 0 | N/A | 0.05\% | 0.16\% | 0 | 0 | 0\% | 0\% |
| 26 | 0 | 6 | 0.0000 | 0.09\% | 0.16\% | 0.0 | 0.0 | 0\% | 0\% |
| 27 | 0 | 57 | 0.0000 | 0.13\% | 0.16\% | 0.1 | 0.1 | 0\% | 0\% |
| 28 | 0 | 129 | 0.0000 | 0.17\% | 0.16\% | 0.2 | 0.2 | 0\% | 0\% |
| 29 | 0 | 249 | 0.0000 | 0.21\% | 0.16\% | 0.5 | 0.4 | 0\% | 0\% |
| 30 | 1 | 411 | 0.0024 | 0.25\% | 0.16\% | 1.0 | 0.7 | 97\% | 152\% |
| 31 | 3 | 513 | 0.0058 | 0.40\% | 0.35\% | 2.1 | 1.8 | 146\% | 169\% |
| 32 | 5 | 617 | 0.0081 | 0.55\% | 0.55\% | 3.4 | 3.4 | 147\% | 146\% |
| 33 | 5 | 714 | 0.0070 | 0.70\% | 0.77\% | 5.0 | 5.5 | 100\% | 90\% |
| 34 | 4 | 828 | 0.0048 | 0.85\% | 1.01\% | 7.0 | 8.3 | 57\% | 48\% |
| 35 | 11 | 1,009 | 0.0109 | 1.00\% | 1.25\% | 10.1 | 12.7 | 109\% | 87\% |
| 36 | 21 | 1,199 | 0.0175 | 1.20\% | 1.51\% | 14.4 | 18.1 | 146\% | 116\% |
| 37 | 30 | 1,341 | 0.0224 | 1.40\% | 1.79\% | 18.8 | 23.9 | 160\% | 125\% |
| 38 | 35 | 1,440 | 0.0243 | 1.60\% | 2.07\% | 23.0 | 29.8 | 152\% | 117\% |
| 39 | 38 | 1,462 | 0.0260 | 1.80\% | 2.37\% | 26.3 | 34.6 | 144\% | 110\% |
| 40 | 46 | 1,501 | 0.0306 | 2.00\% | 2.68\% | 30.0 | 40.2 | 153\% | 114\% |
| 41 | 44 | 1,487 | 0.0296 | 2.20\% | 3.00\% | 32.7 | 44.6 | 134\% | 99\% |
| 42 | 60 | 1,536 | 0.0391 | 2.40\% | 3.34\% | 36.9 | 51.3 | 163\% | 117\% |
| 43 | 72 | 1,597 | 0.0451 | 2.60\% | 3.69\% | 41.5 | 58.9 | 173\% | 122\% |
| 44 | 59 | 1,586 | 0.0372 | 2.80\% | 4.05\% | 44.4 | 64.2 | 133\% | 92\% |
| 45 | 70 | 1,556 | 0.0450 | 3.00\% | 4.42\% | 46.7 | 68.8 | 150\% | 102\% |
| 46 | 77 | 1,426 | 0.0540 | 3.40\% | 4.81\% | 48.5 | 68.6 | 159\% | 112\% |
| 47 | 74 | 1,280 | 0.0578 | 3.80\% | 5.21\% | 48.6 | 66.7 | 152\% | 111\% |
| 48 | 79 | 1,154 | 0.0685 | 4.20\% | 5.62\% | 48.5 | 64.9 | 163\% | 122\% |
| 49 | 65 | 1,102 | 0.0590 | 4.60\% | 6.05\% | 50.7 | 66.6 | 128\% | 98\% |
| 50 | 71 | 1,050 | 0.0676 | 5.00\% | 6.49\% | 52.5 | 68.1 | 135\% | 104\% |
| 51 | 84 | 990 | 0.0848 | 5.60\% | 6.94\% | 55.4 | 68.7 | 152\% | 122\% |
| 52 | 82 | 869 | 0.0944 | 6.20\% | 7.40\% | 53.9 | 64.3 | 152\% | 127\% |
| 53 | 53 | 706 | 0.0751 | 6.80\% | 7.88\% | 48.0 | 55.6 | 110\% | 95\% |
| 54 | 55 | 579 | 0.0950 | 7.40\% | 8.37\% | 42.8 | 48.5 | 128\% | 114\% |
| 55 | 50 | 453 | 0.1104 | 8.00\% | 8.87\% | 36.2 | 40.2 | 138\% | 124\% |
| 56 | 32 | 337 | 0.0950 | 10.00\% | 9.60\% | 33.7 | 32.4 | 95\% | 99\% |
| 57 | 31 | 234 | 0.1325 | 12.00\% | 9.60\% | 28.1 | 22.5 | 110\% | 138\% |
| 58 | 17 | 149 | 0.1141 | 15.00\% | 9.60\% | 22.4 | 14.3 | 76\% | 119\% |
| 59 | 17 | 105 | 0.1619 | 18.00\% | 9.60\% | 18.9 | 10.1 | 90\% | 169\% |
| 60 | 6 | 78 | 0.0769 | 21.00\% | 9.60\% | 16.4 | 7.5 | 37\% | 80\% |
| 61 | 12 | 62 | 0.1935 | 25.00\% | 9.60\% | 15.5 | 6.0 | 77\% | 202\% |
| 62 | 4 | 41 | 0.0976 | 30.00\% | 9.60\% | 12.3 | 3.9 | 33\% | 102\% |
| 63 | 0 | 0 | N/A | 30.00\% | 9.60\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 30.00\% | 9.60\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 30.00\% | 9.60\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 30.00\% | 9.60\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 30.00\% | 9.60\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 30.00\% | 9.60\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 30.00\% | 9.60\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 30.00\% | 9.60\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 30.00\% | 9.60\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 30.00\% | 9.60\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 30.00\% | 9.60\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 30.00\% | 9.60\% | 0 | 0 | 0\% | 0\% |
| Total | 1,313 | 29,853 |  |  |  | 976.6 | 1,176.3 | 134\% | 112\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Age | TABLE 7A GROUPED |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed (8) / (3) | Expected | Proposed | Expected $(2) /(7)$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 676 | 0.0000 | 0.01\% | 0.01\% | 0.1 | 0.1 | 0\% | 0\% |
| 25-29 | 0 | 6,294 | 0.0000 | 0.02\% | 0.02\% | 1.6 | 1.2 | 0\% | 0\% |
| 30-34 | 1 | 9,506 | 0.0001 | 0.07\% | 0.06\% | 6.6 | 5.3 | 15\% | 19\% |
| 35-39 | 0 | 9,029 | 0.0000 | 0.12\% | 0.10\% | 10.8 | 8.6 | 0\% | 0\% |
| 40-44 | 5 | 7,903 | 0.0006 | 0.17\% | 0.14\% | 13.4 | 10.7 | 37\% | 47\% |
| 45-49 | 0 | 6,524 | 0.0000 | 0.24\% | 0.19\% | 15.4 | 12.3 | 0\% | 0\% |
| 50-54 | 0 | 4,196 | 0.0000 | 0.54\% | 0.43\% | 22.6 | 18.1 | 0\% | 0\% |
| 55-59 | 0 | 1,286 | 0.0000 | 2.31\% | 1.85\% | 29.7 | 23.8 | 0\% | 0\% |
| 60-64 | 1 | 181 | 0.0055 | 7.59\% | 6.07\% | 13.7 | 11.0 | 7\% | 9\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 7 | 45,595 |  |  |  | 114.0 | 91.2 | 6\% | 8\% |

NEW YORK CITY FIRE DEPARTMENT PENSION FUND ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS

MEN AND WOMEN ELIGIBLE FOR WTC BENEFITS


## NEW YORK CITY FIRE DEPARTMENT PENSION FUND ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Age | Actual | TABLE 7A <br> Total Exposed | Actual Rate <br> (2) / (3) | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Disabilities |  | Actual/Expected |  |
|  |  |  |  | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 4 | 0.0000 | 0.01\% | 0.01\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 34 | 0.0000 | 0.01\% | 0.01\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 180 | 0.0000 | 0.01\% | 0.01\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 537 | 0.0000 | 0.01\% | 0.01\% | 0.1 | 0.0 | 0\% | 0\% |
| 24 | 0 | 1,063 | 0.0000 | 0.01\% | 0.01\% | 0.1 | 0.1 | 0\% | 0\% |
| 25 | 0 | 1,638 | 0.0000 | 0.01\% | 0.01\% | 0.2 | 0.1 | 0\% | 0\% |
| 26 | 0 | 2,196 | 0.0000 | 0.01\% | 0.01\% | 0.2 | 0.2 | 0\% | 0\% |
| 27 | 0 | 2,611 | 0.0000 | 0.02\% | 0.02\% | 0.5 | 0.4 | 0\% | 0\% |
| 28 | 0 | 2,910 | 0.0000 | 0.03\% | 0.02\% | 0.9 | 0.7 | 0\% | 0\% |
| 29 | 0 | 3,134 | 0.0000 | 0.04\% | 0.03\% | 1.3 | 1.0 | 0\% | 0\% |
| 30 | 1 | 3,382 | 0.0003 | 0.05\% | 0.04\% | 1.7 | 1.4 | 59\% | 74\% |
| 31 | 0 | 3,604 | 0.0000 | 0.06\% | 0.05\% | 2.2 | 1.7 | 0\% | 0\% |
| 32 | 1 | 3,740 | 0.0003 | 0.07\% | 0.06\% | 2.6 | 2.1 | 38\% | 48\% |
| 33 | 0 | 3,757 | 0.0000 | 0.08\% | 0.06\% | 3.0 | 2.4 | 0\% | 0\% |
| 34 | 1 | 3,740 | 0.0003 | 0.09\% | 0.07\% | 3.4 | 2.7 | 30\% | 37\% |
| 35 | 0 | 3,666 | 0.0000 | 0.10\% | 0.08\% | 3.7 | 2.9 | 0\% | 0\% |
| 36 | 0 | 3,670 | 0.0000 | 0.11\% | 0.09\% | 4.0 | 3.2 | 0\% | 0\% |
| 37 | 0 | 3,587 | 0.0000 | 0.12\% | 0.10\% | 4.3 | 3.4 | 0\% | 0\% |
| 38 | 2 | 3,568 | 0.0006 | 0.13\% | 0.10\% | 4.6 | 3.7 | 43\% | 54\% |
| 39 | 0 | 3,585 | 0.0000 | 0.14\% | 0.11\% | 5.0 | 4.0 | 0\% | 0\% |
| 40 | 2 | 3,582 | 0.0006 | 0.15\% | 0.12\% | 5.4 | 4.3 | 37\% | 47\% |
| 41 | 1 | 3,480 | 0.0003 | 0.16\% | 0.13\% | 5.6 | 4.5 | 18\% | 22\% |
| 42 | 0 | 3,366 | 0.0000 | 0.17\% | 0.14\% | 5.7 | 4.6 | 0\% | 0\% |
| 43 | 2 | 3,276 | 0.0006 | 0.18\% | 0.14\% | 5.9 | 4.7 | 34\% | 42\% |
| 44 | 3 | 3,177 | 0.0009 | 0.19\% | 0.15\% | 6.0 | 4.8 | 50\% | 62\% |
| 45 | 0 | 3,131 | 0.0000 | 0.20\% | 0.16\% | 6.3 | 5.0 | 0\% | 0\% |
| 46 | 1 | 2,967 | 0.0003 | 0.22\% | 0.18\% | 6.5 | 5.2 | 15\% | 19\% |
| 47 | 0 | 2,756 | 0.0000 | 0.24\% | 0.19\% | 6.6 | 5.3 | 0\% | 0\% |
| 48 | 0 | 2,512 | 0.0000 | 0.26\% | 0.21\% | 6.5 | 5.2 | 0\% | 0\% |
| 49 | 0 | 2,285 | 0.0000 | 0.28\% | 0.22\% | 6.4 | 5.1 | 0\% | 0\% |
| 50 | 1 | 2,051 | 0.0005 | 0.30\% | 0.24\% | 6.2 | 4.9 | 16\% | 20\% |
| 51 | 0 | 1,784 | 0.0000 | 0.44\% | 0.35\% | 7.8 | 6.3 | 0\% | 0\% |
| 52 | 1 | 1,502 | 0.0007 | 0.58\% | 0.46\% | 8.7 | 7.0 | 11\% | 14\% |
| 53 | 0 | 1,166 | 0.0000 | 0.72\% | 0.58\% | 8.4 | 6.7 | 0\% | 0\% |
| 54 | 0 | 908 | 0.0000 | 0.86\% | 0.69\% | 7.8 | 6.2 | 0\% | 0\% |
| 55 | 1 | 697 | 0.0014 | 1.00\% | 0.80\% | 7.0 | 5.6 | 14\% | 18\% |
| 56 | 0 | 510 | 0.0000 | 2.00\% | 1.60\% | 10.2 | 8.2 | 0\% | 0\% |
| 57 | 2 | 375 | 0.0053 | 3.00\% | 2.40\% | 11.3 | 9.0 | 18\% | 22\% |
| 58 | 1 | 269 | 0.0037 | 4.00\% | 3.20\% | 10.8 | 8.6 | 9\% | 12\% |
| 59 | 0 | 178 | 0.0000 | 5.00\% | 4.00\% | 8.9 | 7.1 | 0\% | 0\% |
| 60 | 1 | 125 | 0.0080 | 6.00\% | 4.80\% | 7.5 | 6.0 | 13\% | 17\% |
| 61 | 0 | 106 | 0.0000 | 8.00\% | 6.40\% | 8.5 | 6.8 | 0\% | 0\% |
| 62 | 1 | 78 | 0.0128 | 10.00\% | 8.00\% | 7.8 | 6.2 | 13\% | 16\% |
| 63 | 0 | 0 | N/A | 10.00\% | 8.00\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 10.00\% | 8.00\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 10.00\% | 8.00\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 10.00\% | 8.00\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 10.00\% | 8.00\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 10.00\% | 8.00\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 10.00\% | 8.00\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 10.00\% | 8.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 10.00\% | 8.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 10.00\% | 8.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 10.00\% | 8.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 10.00\% | 8.00\% | 0 | 0 | 0\% | 0\% |
| Total | 22 | 90,887 |  |  |  | 209.4 | 167.5 | 11\% | 13\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN ELIGIBLE FOR WTC BENEFITS

| Age | TABLE 8A |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Disabilities |  | Actual/Expected |  |
|  | Actual | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed <br> (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 0 | N/A | 0.05\% | 0.16\% | 0 | 0 | 0\% | 0\% |
| 21 | 0 | 0 | N/A | 0.05\% | 0.16\% | 0 | 0 | 0\% | 0\% |
| 22 | 0 | 2 | 0.0000 | 0.05\% | 0.16\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 52 | 0.0000 | 0.05\% | 0.16\% | 0.0 | 0.1 | 0\% | 0\% |
| 24 | 0 | 120 | 0.0000 | 0.05\% | 0.16\% | 0.1 | 0.2 | 0\% | 0\% |
| 25 | 0 | 241 | 0.0000 | 0.05\% | 0.16\% | 0.1 | 0.4 | 0\% | 0\% |
| 26 | 0 | 391 | 0.0000 | 0.09\% | 0.16\% | 0.4 | 0.6 | 0\% | 0\% |
| 27 | 2 | 556 | 0.0036 | 0.13\% | 0.16\% | 0.7 | 0.9 | 277\% | 225\% |
| 28 | 0 | 737 | 0.0000 | 0.17\% | 0.16\% | 1.3 | 1.2 | 0\% | 0\% |
| 29 | 1 | 966 | 0.0010 | 0.21\% | 0.16\% | 2.0 | 1.5 | 49\% | 65\% |
| 30 | 5 | 1,242 | 0.0040 | 0.25\% | 0.16\% | 3.1 | 2.0 | 161\% | 252\% |
| 31 | 7 | 1,542 | 0.0045 | 0.40\% | 0.35\% | 6.2 | 5.3 | 113\% | 131\% |
| 32 | 17 | 1,864 | 0.0091 | 0.55\% | 0.55\% | 10.3 | 10.3 | 166\% | 165\% |
| 33 | 17 | 2,136 | 0.0080 | 0.70\% | 0.77\% | 15.0 | 16.5 | 114\% | 103\% |
| 34 | 31 | 2,384 | 0.0130 | 0.85\% | 1.01\% | 20.3 | 24.0 | 153\% | 129\% |
| 35 | 34 | 2,612 | 0.0130 | 1.00\% | 1.25\% | 26.1 | 32.8 | 130\% | 104\% |
| 36 | 53 | 2,866 | 0.0185 | 1.20\% | 1.51\% | 34.4 | 43.4 | 154\% | 122\% |
| 37 | 64 | 3,029 | 0.0211 | 1.40\% | 1.79\% | 42.4 | 54.1 | 151\% | 118\% |
| 38 | 79 | 3,197 | 0.0247 | 1.60\% | 2.07\% | 51.2 | 66.2 | 154\% | 119\% |
| 39 | 93 | 3,334 | 0.0279 | 1.80\% | 2.37\% | 60.0 | 78.9 | 155\% | 118\% |
| 40 | 111 | 3,441 | 0.0323 | 2.00\% | 2.68\% | 68.8 | 92.2 | 161\% | 120\% |
| 41 | 123 | 3,430 | 0.0359 | 2.20\% | 3.00\% | 75.5 | 103.0 | 163\% | 119\% |
| 42 | 149 | 3,347 | 0.0445 | 2.40\% | 3.34\% | 80.3 | 111.7 | 185\% | 133\% |
| 43 | 148 | 3,263 | 0.0454 | 2.60\% | 3.69\% | 84.8 | 120.3 | 174\% | 123\% |
| 44 | 155 | 3,170 | 0.0489 | 2.80\% | 4.05\% | 88.8 | 128.3 | 175\% | 121\% |
| 45 | 179 | 3,122 | 0.0573 | 3.00\% | 4.42\% | 93.7 | 138.1 | 191\% | 130\% |
| 46 | 174 | 2,957 | 0.0588 | 3.40\% | 4.81\% | 100.5 | 142.2 | 173\% | 122\% |
| 47 | 173 | 2,751 | 0.0629 | 3.80\% | 5.21\% | 104.5 | 143.3 | 165\% | 121\% |
| 48 | 184 | 2,507 | 0.0734 | 4.20\% | 5.62\% | 105.3 | 141.0 | 175\% | 131\% |
| 49 | 154 | 2,279 | 0.0676 | 4.60\% | 6.05\% | 104.8 | 137.8 | 147\% | 112\% |
| 50 | 173 | 2,045 | 0.0846 | 5.00\% | 6.49\% | 102.3 | 132.6 | 169\% | 130\% |
| 51 | 162 | 1,778 | 0.0911 | 5.60\% | 6.94\% | 99.6 | 123.4 | 163\% | 131\% |
| 52 | 149 | 1,496 | 0.0996 | 6.20\% | 7.40\% | 92.8 | 110.7 | 161\% | 135\% |
| 53 | 96 | 1,161 | 0.0827 | 6.80\% | 7.88\% | 78.9 | 91.5 | 122\% | 105\% |
| 54 | 97 | 905 | 0.1072 | 7.40\% | 8.37\% | 67.0 | 75.7 | 145\% | 128\% |
| 55 | 86 | 691 | 0.1245 | 8.00\% | 8.87\% | 55.3 | 61.3 | 156\% | 140\% |
| 56 | 49 | 506 | 0.0968 | 10.00\% | 9.60\% | 50.6 | 48.6 | 97\% | 101\% |
| 57 | 47 | 372 | 0.1263 | 12.00\% | 9.60\% | 44.6 | 35.7 | 105\% | 132\% |
| 58 | 39 | 267 | 0.1461 | 15.00\% | 9.60\% | 40.1 | 25.6 | 97\% | 152\% |
| 59 | 29 | 177 | 0.1638 | 18.00\% | 9.60\% | 31.9 | 17.0 | 91\% | 171\% |
| 60 | 12 | 124 | 0.0968 | 21.00\% | 9.60\% | 26.0 | 11.9 | 46\% | 101\% |
| 61 | 20 | 105 | 0.1905 | 25.00\% | 9.60\% | 26.3 | 10.1 | 76\% | 198\% |
| 62 | 8 | 77 | 0.1039 | 30.00\% | 9.60\% | 23.1 | 7.4 | 35\% | 108\% |
| 63 | 0 | 0 | N/A | 30.00\% | 9.60\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 30.00\% | 9.60\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 30.00\% | 9.60\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 30.00\% | 9.60\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 30.00\% | 9.60\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 30.00\% | 9.60\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 30.00\% | 9.60\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 30.00\% | 9.60\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 30.00\% | 9.60\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 30.00\% | 9.60\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 30.00\% | 9.60\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 30.00\% | 9.60\% | 0 | 0 | 0\% | 0\% |
| Total | 2,920 | 67,242 |  |  |  | 1,918.8 | 2,347.8 | 152\% | 124\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Age | Actual | TABLE 7A GROUPED |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Disabilities |  | Actual/Expected |  |
|  |  | Total <br> Exposed | $\begin{aligned} & \text { Actual Rate } \\ & \text { (2)/(3) } \\ & \hline \end{aligned}$ | Expected <br> (7) / (3) | $\begin{gathered} \hline \text { Proposed } \\ (8) /(3) \\ \hline \end{gathered}$ | Expected | Proposed | Expected <br> (2) / (7) | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 1,818 | 0.0000 | 0.01\% | 0.01\% | 0.2 | 0.1 | 0\% | 0\% |
| 25-29 | 0 | 12,489 | 0.0000 | 0.02\% | 0.02\% | 3.0 | 2.4 | 0\% | 0\% |
| 30-34 | 3 | 18,223 | 0.0002 | 0.07\% | 0.06\% | 12.8 | 10.3 | 23\% | 29\% |
| 35-39 | 2 | 18,076 | 0.0001 | 0.12\% | 0.10\% | 21.7 | 17.3 | 9\% | 12\% |
| 40-44 | 8 | 16,881 | 0.0005 | 0.17\% | 0.14\% | 28.6 | 22.9 | 28\% | 35\% |
| 45-49 | 1 | 13,651 | 0.0001 | 0.24\% | 0.19\% | 32.3 | 25.9 | 3\% | 4\% |
| 50-54 | 2 | 7,411 | 0.0003 | 0.53\% | 0.42\% | 38.9 | 31.1 | 5\% | 6\% |
| 55-59 | 4 | 2,029 | 0.0020 | 2.37\% | 1.90\% | 48.1 | 38.5 | 8\% | 10\% |
| 60-64 | 2 | 309 | 0.0065 | 7.70\% | 6.16\% | 23.8 | 19.0 | 8\% | 11\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 22 | 90,887 |  |  |  | 209.4 | 167.5 | 11\% | 13\% |

NEW YORK CITY FIRE DEPARTMENT PENSION FUND ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN ELIGIBLE FOR WTC BENEFITS


NEW YORK CITY FIRE DEPARTMENT PENSION FUND ORDINARY DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Plan <br> Year <br> Ending <br> June 30, | TABLE 7B <br> Life Years <br> Exposed | Actual Disabilities | Expected Disabilities | 10-YEAR PERIOD ENDING 6/30/2013 <br> Disability Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / <br> Expected | $\begin{aligned} & \hline \text { Actual } \\ & (3) /(2) \\ & \hline \end{aligned}$ | Expected <br> (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 10,892 | 6 | 23.4 | 26\% | 0.06\% | 0.22\% |
| 2005 | 11,316 | 2 | 23.8 | 8\% | 0.02\% | 0.21\% |
| 2006 | 11,479 | 4 | 23.7 | 17\% | 0.03\% | 0.21\% |
| 2007 | 11,607 | 4 | 24.5 | 16\% | 0.03\% | 0.21\% |
| 2008 | 11,518 | 4 | 25.4 | 16\% | 0.03\% | 0.22\% |
| 2009 | 11,574 | 2 | 27.4 | 7\% | 0.02\% | 0.24\% |
| 2010 | 11,445 | 1 | 29.5 | 3\% | 0.01\% | 0.26\% |
| 2011 | 11,058 | 1 | 31.7 | 3\% | 0.01\% | 0.29\% |
| 2012 | 10,620 | 2 | 33.9 | 6\% | 0.02\% | 0.32\% |
| 2013 | 10,240 | 0 | 37.6 | 0\% | 0.00\% | 0.37\% |
| Total | 111,749 | 26 | 280.9 | 9\% | 0.02\% | 0.25\% |

*The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 20 and over 75.

# NEW YORK CITY FIRE DEPARTMENT PENSION FUND ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS <br> MEN AND WOMEN NOT ELIGIBLE FOR WTC BENEFITS 

| Age | TABLE 8B |  |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Disabilities |  | Actual/Expected |  |
|  | Actual | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed <br> (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 1 | 0.0000 | 0.03\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 1 | 0.0000 | 0.03\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 21 | 0.0000 | 0.03\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 23 | 0 | 186 | 0.0000 | 0.03\% | 0.02\% | 0.1 | 0.0 | 0\% | 0\% |
| 24 | 0 | 467 | 0.0000 | 0.03\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 25 | 0 | 783 | 0.0000 | 0.03\% | 0.02\% | 0.2 | 0.2 | 0\% | 0\% |
| 26 | 0 | 1,056 | 0.0000 | 0.04\% | 0.02\% | 0.4 | 0.2 | 0\% | 0\% |
| 27 | 2 | 1,244 | 0.0016 | 0.05\% | 0.03\% | 0.6 | 0.3 | 322\% | 595\% |
| 28 | 0 | 1,351 | 0.0000 | 0.07\% | 0.04\% | 0.9 | 0.5 | 0\% | 0\% |
| 29 | 0 | 1,419 | 0.0000 | 0.10\% | 0.06\% | 1.4 | 0.8 | 0\% | 0\% |
| 30 | 2 | 1,458 | 0.0014 | 0.15\% | 0.08\% | 2.2 | 1.1 | 91\% | 176\% |
| 31 | 2 | 1,455 | 0.0014 | 0.24\% | 0.11\% | 3.5 | 1.6 | 57\% | 128\% |
| 32 | 1 | 1,334 | 0.0007 | 0.33\% | 0.14\% | 4.4 | 1.9 | 23\% | 53\% |
| 33 | 4 | 1,171 | 0.0034 | 0.42\% | 0.18\% | 4.9 | 2.1 | 81\% | 187\% |
| 34 | 2 | 1,005 | 0.0020 | 0.51\% | 0.23\% | 5.1 | 2.3 | 39\% | 87\% |
| 35 | 2 | 812 | 0.0025 | 0.60\% | 0.28\% | 4.9 | 2.3 | 41\% | 87\% |
| 36 | 1 | 665 | 0.0015 | 0.72\% | 0.34\% | 4.8 | 2.3 | 21\% | 44\% |
| 37 | 4 | 508 | 0.0079 | 0.85\% | 0.41\% | 4.3 | 2.1 | 93\% | 193\% |
| 38 | 1 | 354 | 0.0028 | 0.99\% | 0.48\% | 3.5 | 1.7 | 29\% | 59\% |
| 39 | 1 | 239 | 0.0042 | 1.14\% | 0.56\% | 2.7 | 1.3 | 37\% | 75\% |
| 40 | 1 | 132 | 0.0076 | 1.30\% | 0.64\% | 1.7 | 0.8 | 58\% | 119\% |
| 41 | 0 | 42 | 0.0000 | 1.44\% | 1.00\% | 0.6 | 0.4 | 0\% | 0\% |
| 42 | 1 | 11 | 0.0909 | 1.58\% | 2.00\% | 0.2 | 0.2 | 575\% | 455\% |
| 43 | 1 | 7 | 0.1429 | 1.72\% | 3.00\% | 0.1 | 0.2 | 831\% | 476\% |
| 44 | 0 | 4 | 0.0000 | 1.86\% | 4.00\% | 0.1 | 0.2 | 0\% | 0\% |
| 45 | 0 | 2 | 0.0000 | 2.00\% | 5.00\% | 0.0 | 0.1 | 0\% | 0\% |
| 46 | 0 | 1 | 0.0000 | 2.30\% | 6.00\% | 0.0 | 0.1 | 0\% | 0\% |
| 47 | 0 | 1 | 0.0000 | 2.60\% | 7.00\% | 0.0 | 0.1 | 0\% | 0\% |
| 48 | 0 | 1 | 0.0000 | 2.90\% | 8.00\% | 0.0 | 0.1 | 0\% | 0\% |
| 49 | 0 | 1 | 0.0000 | 3.20\% | 9.00\% | 0.0 | 0.1 | 0\% | 0\% |
| 50 | 0 | 1 | 0.0000 | 3.50\% | 10.00\% | 0.0 | 0.1 | 0\% | 0\% |
| 51 | 0 | 1 | 0.0000 | 3.80\% | 10.00\% | 0.0 | 0.1 | 0\% | 0\% |
| 52 | 0 | 0 | N/A | 4.10\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 53 | 0 | 0 | N/A | 4.40\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 54 | 0 | 0 | N/A | 4.70\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 55 | 0 | 1 | 0.0000 | 5.00\% | 10.00\% | 0.1 | 0.1 | 0\% | 0\% |
| 56 | 0 | 2 | 0.0000 | 7.00\% | 10.00\% | 0.1 | 0.2 | 0\% | 0\% |
| 57 | 0 | 2 | 0.0000 | 9.00\% | 10.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 58 | 0 | 2 | 0.0000 | 11.00\% | 10.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 59 | 0 | 1 | 0.0000 | 13.00\% | 10.00\% | 0.1 | 0.1 | 0\% | 0\% |
| 60 | 0 | 0 | N/A | 15.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 61 | 0 | 0 | N/A | 17.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 62 | 0 | 0 | N/A | 19.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 19.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 19.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 19.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 19.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 19.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 19.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 19.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 19.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 19.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 19.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 19.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 19.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| Total | 25 | 15,742 |  |  |  | 47.8 | 24.1 | 52\% | 104\% |

NEW YORK CITY FIRE DEPARTMENT PENSION FUND ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS

MEN AND WOMEN NOT ELIGIBLE FOR WTC BENEFITS

| Age | Actual | TABLE 8B GROUPED |  | 4-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected <br> (7) / (3) | Proposed (8) / (3) | Expected | Proposed | Expected $(2) /(7)$ | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 676 | 0.0000 | 0.03\% | 0.02\% | 0.2 | 0.1 | 0\% | 0\% |
| 25-29 | 2 | 5,853 | 0.0003 | 0.06\% | 0.04\% | 3.6 | 2.1 | 55\% | 97\% |
| 30-34 | 11 | 6,423 | 0.0017 | 0.31\% | 0.14\% | 20.1 | 9.0 | 55\% | 122\% |
| 35-39 | 9 | 2,578 | 0.0035 | 0.78\% | 0.37\% | 20.2 | 9.7 | 45\% | 93\% |
| 40-44 | 3 | 196 | 0.0153 | 1.37\% | 0.94\% | 2.7 | 1.9 | 112\% | 162\% |
| 45-49 | 0 | 6 | 0.0000 | 2.50\% | 6.67\% | 0.2 | 0.4 | 0\% | 0\% |
| 50-54 | 0 | 2 | 0.0000 | 3.65\% | 10.00\% | 0.1 | 0.2 | 0\% | 0\% |
| 55-59 | 0 | 8 | 0.0000 | 9.00\% | 10.00\% | 0.7 | 0.8 | 0\% | 0\% |
| 60-64 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 25 | 15,742 |  |  |  | 47.8 | 24.1 | 52\% | 104\% |

# NEW YORK CITY FIRE DEPARTMENT PENSION FUND ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS <br> MEN AND WOMEN NOT ELIGIBLE FOR WTC BENEFITS 

| Age | TABLE 8B |  |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Disabilities |  | Actual/Expected |  |
|  | Actual | Total Exposed | $\begin{aligned} & \text { Actual Rate } \\ & (2) /(3) \\ & \hline \end{aligned}$ | Expected | Proposed | Expected <br> (3) $\times(5)$ | Proposed <br> (3) $\times(6)$ | Expected <br> (2) / (7) | Proposed <br> (2) / (8) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20 | 0 | 4 | 0.0000 | 0.03\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 21 | 0 | 34 | 0.0000 | 0.03\% | 0.02\% | 0.0 | 0.0 | 0\% | 0\% |
| 22 | 0 | 178 | 0.0000 | 0.03\% | 0.02\% | 0.1 | 0.0 | 0\% | 0\% |
| 23 | 0 | 485 | 0.0000 | 0.03\% | 0.02\% | 0.1 | 0.1 | 0\% | 0\% |
| 24 | 0 | 943 | 0.0000 | 0.03\% | 0.02\% | 0.3 | 0.2 | 0\% | 0\% |
| 25 | 0 | 1,397 | 0.0000 | 0.03\% | 0.02\% | 0.4 | 0.3 | 0\% | 0\% |
| 26 | 0 | 1,805 | 0.0000 | 0.04\% | 0.02\% | 0.7 | 0.4 | 0\% | 0\% |
| 27 | 2 | 2,055 | 0.0010 | 0.05\% | 0.03\% | 1.0 | 0.6 | 195\% | 360\% |
| 28 | 0 | 2,173 | 0.0000 | 0.07\% | 0.04\% | 1.5 | 0.8 | 0\% | 0\% |
| 29 | 0 | 2,168 | 0.0000 | 0.10\% | 0.06\% | 2.2 | 1.2 | 0\% | 0\% |
| 30 | 2 | 2,140 | 0.0009 | 0.15\% | 0.08\% | 3.2 | 1.7 | 62\% | 120\% |
| 31 | 2 | 2,062 | 0.0010 | 0.24\% | 0.11\% | 4.9 | 2.2 | 40\% | 91\% |
| 32 | 2 | 1,876 | 0.0011 | 0.33\% | 0.14\% | 6.2 | 2.7 | 32\% | 75\% |
| 33 | 5 | 1,621 | 0.0031 | 0.42\% | 0.18\% | 6.8 | 3.0 | 73\% | 169\% |
| 34 | 2 | 1,356 | 0.0015 | 0.51\% | 0.23\% | 6.9 | 3.1 | 29\% | 64\% |
| 35 | 2 | 1,054 | 0.0019 | 0.60\% | 0.28\% | 6.3 | 3.0 | 32\% | 67\% |
| 36 | 1 | 804 | 0.0012 | 0.72\% | 0.34\% | 5.8 | 2.7 | 17\% | 36\% |
| 37 | 4 | 558 | 0.0072 | 0.85\% | 0.41\% | 4.7 | 2.3 | 84\% | 176\% |
| 38 | 1 | 371 | 0.0027 | 0.99\% | 0.48\% | 3.7 | 1.8 | 27\% | 56\% |
| 39 | 1 | 251 | 0.0040 | 1.14\% | 0.56\% | 2.9 | 1.4 | 35\% | 72\% |
| 40 | 1 | 141 | 0.0071 | 1.30\% | 0.64\% | 1.8 | 0.9 | 55\% | 111\% |
| 41 | 0 | 50 | 0.0000 | 1.44\% | 1.00\% | 0.7 | 0.5 | 0\% | 0\% |
| 42 | 1 | 19 | 0.0526 | 1.58\% | 2.00\% | 0.3 | 0.4 | 333\% | 263\% |
| 43 | 1 | 13 | 0.0769 | 1.72\% | 3.00\% | 0.2 | 0.4 | 447\% | 256\% |
| 44 | 0 | 7 | 0.0000 | 1.86\% | 4.00\% | 0.1 | 0.3 | 0\% | 0\% |
| 45 | 0 | 9 | 0.0000 | 2.00\% | 5.00\% | 0.2 | 0.5 | 0\% | 0\% |
| 46 | 1 | 10 | 0.1000 | 2.30\% | 6.00\% | 0.2 | 0.6 | 435\% | 167\% |
| 47 | 0 | 5 | 0.0000 | 2.60\% | 7.00\% | 0.1 | 0.4 | 0\% | 0\% |
| 48 | 0 | 5 | 0.0000 | 2.90\% | 8.00\% | 0.1 | 0.4 | 0\% | 0\% |
| 49 | 0 | 6 | 0.0000 | 3.20\% | 9.00\% | 0.2 | 0.5 | 0\% | 0\% |
| 50 | 0 | 6 | 0.0000 | 3.50\% | 10.00\% | 0.2 | 0.6 | 0\% | 0\% |
| 51 | 0 | 6 | 0.0000 | 3.80\% | 10.00\% | 0.2 | 0.6 | 0\% | 0\% |
| 52 | 1 | 6 | 0.1667 | 4.10\% | 10.00\% | 0.2 | 0.6 | 407\% | 167\% |
| 53 | 0 | 5 | 0.0000 | 4.40\% | 10.00\% | 0.2 | 0.5 | 0\% | 0\% |
| 54 | 0 | 3 | 0.0000 | 4.70\% | 10.00\% | 0.1 | 0.3 | 0\% | 0\% |
| 55 | 0 | 6 | 0.0000 | 5.00\% | 10.00\% | 0.3 | 0.6 | 0\% | 0\% |
| 56 | 0 | 4 | 0.0000 | 7.00\% | 10.00\% | 0.3 | 0.4 | 0\% | 0\% |
| 57 | 0 | 3 | 0.0000 | 9.00\% | 10.00\% | 0.3 | 0.3 | 0\% | 0\% |
| 58 | 0 | 2 | 0.0000 | 11.00\% | 10.00\% | 0.2 | 0.2 | 0\% | 0\% |
| 59 | 0 | 1 | 0.0000 | 13.00\% | 10.00\% | 0.1 | 0.1 | 0\% | 0\% |
| 60 | 0 | 1 | 0.0000 | 15.00\% | 10.00\% | 0.2 | 0.1 | 0\% | 0\% |
| 61 | 0 | 1 | 0.0000 | 17.00\% | 10.00\% | 0.2 | 0.1 | 0\% | 0\% |
| 62 | 0 | 1 | 0.0000 | 19.00\% | 10.00\% | 0.2 | 0.1 | 0\% | 0\% |
| 63 | 0 | 0 | N/A | 19.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 64 | 0 | 0 | N/A | 19.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 65 | 0 | 0 | N/A | 19.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 66 | 0 | 0 | N/A | 19.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 67 | 0 | 0 | N/A | 19.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 68 | 0 | 0 | N/A | 19.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 69 | 0 | 0 | N/A | 19.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 70 | 0 | 0 | N/A | 19.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 71 | 0 | 0 | N/A | 19.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 72 | 0 | 0 | N/A | 19.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 73 | 0 | 0 | N/A | 19.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| 74 | 0 | 0 | N/A | 19.00\% | 10.00\% | 0 | 0 | 0\% | 0\% |
| Total | 29 | 23,645 |  |  |  | 64.7 | 36.7 | 45\% | 79\% |

NEW YORK CITY FIRE DEPARTMENT PENSION FUND ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS

MEN AND WOMEN NOT ELIGIBLE FOR WTC BENEFITS

| Age | Actual | TABLE 8B GROUPED |  | 8-YEAR PERIOD ENDING 6/30/2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Assumed Probability |  | Expected Disabilities |  | Actual/Expected |  |
|  |  | Total <br> Exposed | Actual Rate <br> (2) / (3) | Expected $(7) /(3)$ | Proposed (8) / (3) | Expected | Proposed | Expected $(2) /(7)$ | Proposed $(\mathbf{2}) /(\mathbf{8})$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 20-24 | 0 | 1,644 | 0.0000 | 0.03\% | 0.02\% | 0.5 | 0.3 | 0\% | 0\% |
| 25-29 | 2 | 9,598 | 0.0002 | 0.06\% | 0.03\% | 5.9 | 3.3 | 34\% | 60\% |
| 30-34 | 13 | 9,055 | 0.0014 | 0.31\% | 0.14\% | 28.1 | 12.6 | 46\% | 103\% |
| 35-39 | 9 | 3,038 | 0.0030 | 0.77\% | 0.37\% | 23.4 | 11.2 | 38\% | 81\% |
| 40-44 | 3 | 230 | 0.0130 | 1.39\% | 1.07\% | 3.2 | 2.4 | 94\% | 122\% |
| 45-49 | 1 | 35 | 0.0286 | 2.51\% | 6.69\% | 0.9 | 2.3 | 114\% | 43\% |
| 50-54 | 1 | 26 | 0.0385 | 4.02\% | 10.00\% | 1.0 | 2.6 | 96\% | 38\% |
| 55-59 | 0 | 16 | 0.0000 | 7.50\% | 10.00\% | 1.2 | 1.6 | 0\% | 0\% |
| 60-64 | 0 | 3 | 0.0000 | 17.00\% | 10.00\% | 0.5 | 0.3 | 0\% | 0\% |
| 65-69 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| 70-74 | 0 | 0 | N/A |  |  | 0 | 0 | 0\% | 0\% |
| Total | 29 | 23,645 |  |  |  | 64.7 | 36.7 | 45\% | 79\% |

NEW YORK CITY FIRE DEPARTMENT PENSION FUND ACCIDENTAL DISABILITY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Plan <br> Year <br> Ending <br> June 30, | TABLE 8C <br> Life Years Exposed | Actual Disabilities | Expected $\underline{\text { Disabilities }}$ | 10-YEAR PERIOD ENDING 6/30/2013 Disability Rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / <br> Expected | Actual $(3) /(2)$ | Expected (4) / (2) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 2004 | 10,892 | 365 | 237.2 | 154\% | 3.35\% | 2.18\% |
| 2005 | 11,316 | 439 | 239.3 | 183\% | 3.88\% | 2.11\% |
| 2006 | 11,479 | 405 | 239.9 | 169\% | 3.53\% | 2.09\% |
| 2007 | 11,607 | 416 | 243.1 | 171\% | 3.58\% | 2.09\% |
| 2008 | 11,518 | 378 | 244.9 | 154\% | 3.28\% | 2.13\% |
| 2009 | 11,574 | 329 | 252.0 | 131\% | 2.84\% | 2.18\% |
| 2010 | 11,445 | 321 | 259.5 | 124\% | 2.80\% | 2.27\% |
| 2011 | 11,058 | 323 | 267.9 | 121\% | 2.92\% | 2.42\% |
| 2012 | 10,620 | 314 | 273.8 | 115\% | 2.96\% | 2.58\% |
| 2013 | 10,240 | 266 | 285.9 | 93\% | 2.60\% | 2.79\% |
| Total | 111,749 | 3,556 | 2543.5 | 140\% | 3.18\% | 2.28\% |

*The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 20 and over 75.

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

TABLE 9A

| Service | Life Years Exposed | Total Salary BOY |  | Actual Salary EOY |  | $\begin{gathered} \text { Expected Salary } \\ \text { EOY } \\ \hline \end{gathered}$ |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 19 | \$ | 741,706 | \$ | 927,931 | \$ | 801,042 | 314\% | 25.11\% | 8.00\% |
| 1 | 433 |  | 17,730,643 |  | 22,027,885 |  | 19,858,320 | 202\% | 24.24\% | 12.00\% |
| 2 | 901 |  | 42,080,257 |  | 51,015,018 |  | 47,550,690 | 163\% | 21.23\% | 13.00\% |
| 3 | 1,415 |  | 77,803,879 |  | 91,308,505 |  | 87,918,383 | 134\% | 17.36\% | 13.00\% |
| 4 | 2,123 |  | 134,681,642 |  | 178,508,695 |  | 200,675,647 | 66\% | 32.54\% | 49.00\% |
| 5 | 2,486 |  | 202,602,306 |  | 241,388,905 |  | 210,706,398 | 479\% | 19.14\% | 4.00\% |
| 6 | 2,655 |  | 245,966,360 |  | 261,093,652 |  | 256,050,981 | 150\% | 6.15\% | 4.10\% |
| 7 | 2,792 |  | 262,944,283 |  | 277,675,783 |  | 273,987,943 | 133\% | 5.60\% | 4.20\% |
| 8 | 2,665 |  | 256,184,253 |  | 268,325,652 |  | 267,200,176 | 110\% | 4.74\% | 4.30\% |
| 9 | 2,350 |  | 230,358,307 |  | 240,683,337 |  | 243,488,730 | 600\% | 4.48\% | 5.70\% |
| 10 | 2,153 |  | 211,609,333 |  | 223,268,573 |  | 221,131,753 | 122\% | 5.51\% | 4.50\% |
| 11 | 1,920 |  | 190,692,462 |  | 201,209,834 |  | 199,464,315 | 120\% | 5.52\% | 4.60\% |
| 12 | 1,701 |  | 171,847,073 |  | 179,941,814 |  | 179,923,885 | 100\% | 4.71\% | 4.70\% |
| 13 | 1,652 |  | 169,429,864 |  | 177,365,276 |  | 177,562,497 | 98\% | 4.68\% | 4.80\% |
| 14 | 1,526 |  | 158,095,580 |  | 168,134,728 |  | 167,739,410 | 104\% | 6.35\% | 6.10\% |
| 15 | 1,405 |  | 148,698,267 |  | 157,888,266 |  | 156,133,180 | 124\% | 6.18\% | 5.00\% |
| 16 | 1,449 |  | 156,691,179 |  | 165,144,875 |  | 164,369,047 | 110\% | 5.40\% | 4.90\% |
| 17 | 1,195 |  | 132,799,123 |  | 139,207,630 |  | 139,173,481 | 101\% | 4.83\% | 4.80\% |
| 18 | 1,149 |  | 127,768,884 |  | 135,280,467 |  | 133,774,022 | 125\% | 5.88\% | 4.70\% |
| 19 | 1,234 |  | 138,208,853 |  | 148,909,921 |  | 146,224,966 | 133\% | 7.74\% | 5.80\% |
| 20 | 993 |  | 115,111,242 |  | 121,762,016 |  | 120,291,248 | 128\% | 5.78\% | 4.50\% |
| 21 | 965 |  | 114,550,101 |  | 118,298,387 |  | 119,590,305 | 74\% | 3.27\% | 4.40\% |
| 22 | 826 |  | 97,526,714 |  | 100,924,712 |  | 101,720,363 | 81\% | 3.48\% | 4.30\% |
| 23 | 661 |  | 76,806,615 |  | 80,619,563 |  | 80,032,493 | 118\% | 4.96\% | 4.20\% |
| 24 | 649 |  | 76,744,898 |  | 80,763,880 |  | 79,891,439 | 128\% | 5.24\% | 4.10\% |
| 25 | 674 |  | 80,771,129 |  | 84,477,424 |  | 84,001,974 | 115\% | 4.59\% | 4.00\% |
| 26 | 664 |  | 80,489,115 |  | 83,697,092 |  | 83,628,190 | 102\% | 3.99\% | 3.90\% |
| 27 | 627 |  | 76,305,957 |  | 78,955,335 |  | 79,205,583 | 91\% | 3.47\% | 3.80\% |
| 28 | 610 |  | 74,586,578 |  | 77,836,868 |  | 77,346,281 | 118\% | 4.36\% | 3.70\% |
| 29 | 463 |  | 59,473,504 |  | 59,943,818 |  | 61,614,550 | 22\% | 0.79\% | 3.60\% |
| 30+ | 1,481 |  | 203,782,580 |  | 208,921,071 |  | 210,914,970 | 72\% | 2.52\% | 3.50\% |
| Total | 41,836 |  | 4,133,082,687 |  | 4,425,506,913 |  | ,391,972,266 | 113\% | 7.08\% | 6.26\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

TABLE 9A

| Service | Life Years Exposed |  | Total Salary BOY | Actual Salary EOY |  | $\begin{aligned} & \text { Proposed Salary } \\ & \text { EOY } \end{aligned}$ |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Actual \% | Proposed \% |  |
| (1) | (2) |  | (3) |  | (4) |  |  |  | (5) | (6) | (7) | (8) |
| 0 | 19 | \$ | 741,706 | \$ | 927,931 | \$ | 838,128 | 193\% | 25.11\% | 13.00\% |
| 1 | 433 |  | 17,730,643 |  | 22,027,885 |  | 19,858,320 | 202\% | 24.24\% | 12.00\% |
| 2 | 901 |  | 42,080,257 |  | 51,015,018 |  | 47,129,888 | 177\% | 21.23\% | 12.00\% |
| 3 | 1,415 |  | 77,803,879 |  | 91,308,505 |  | 87,140,344 | 145\% | 17.36\% | 12.00\% |
| 4 | 2,123 |  | 134,681,642 |  | 178,508,695 |  | 179,126,584 | 99\% | 32.54\% | 33.00\% |
| 5 | 2,486 |  | 202,602,306 |  | 241,388,905 |  | 211,719,410 | 425\% | 19.14\% | 4.50\% |
| 6 | 2,655 |  | 245,966,360 |  | 261,093,652 |  | 257,034,846 | 137\% | 6.15\% | 4.50\% |
| 7 | 2,792 |  | 262,944,283 |  | 277,675,783 |  | 274,776,776 | 125\% | 5.60\% | 4.50\% |
| 8 | 2,665 |  | 256,184,253 |  | 268,325,652 |  | 267,712,544 | 105\% | 4.74\% | 4.50\% |
| 9 | 2,350 |  | 230,358,307 |  | 240,683,337 |  | 243,028,014 | 81\% | 4.48\% | 5.50\% |
| 10 | 2,153 |  | 211,609,333 |  | 223,268,573 |  | 222,189,800 | 110\% | 5.51\% | 5.00\% |
| 11 | 1,920 |  | 190,692,462 |  | 201,209,834 |  | 200,227,085 | 110\% | 5.52\% | 5.00\% |
| 12 | 1,701 |  | 171,847,073 |  | 179,941,814 |  | 180,439,427 | 94\% | 4.71\% | 5.00\% |
| 13 | 1,652 |  | 169,429,864 |  | 177,365,276 |  | 177,901,357 | 94\% | 4.68\% | 5.00\% |
| 14 | 1,526 |  | 158,095,580 |  | 168,134,728 |  | 167,581,315 | 106\% | 6.35\% | 6.00\% |
| 15 | 1,405 |  | 148,698,267 |  | 157,888,266 |  | 156,133,180 | 124\% | 6.18\% | 5.00\% |
| 16 | 1,449 |  | 156,691,179 |  | 165,144,875 |  | 164,525,738 | 108\% | 5.40\% | 5.00\% |
| 17 | 1,195 |  | 132,799,123 |  | 139,207,630 |  | 139,439,079 | 97\% | 4.83\% | 5.00\% |
| 18 | 1,149 |  | 127,768,884 |  | 135,280,467 |  | 134,157,328 | 118\% | 5.88\% | 5.00\% |
| 19 | 1,234 |  | 138,208,853 |  | 148,909,921 |  | 147,883,473 | 111\% | 7.74\% | 7.00\% |
| 20 | 993 |  | 115,111,242 |  | 121,762,016 |  | 120,866,804 | 116\% | 5.78\% | 5.00\% |
| 21 | 965 |  | 114,550,101 |  | 118,298,387 |  | 120,277,606 | 65\% | 3.27\% | 5.00\% |
| 22 | 826 |  | 97,526,714 |  | 100,924,712 |  | 102,403,050 | 70\% | 3.48\% | 5.00\% |
| 23 | 661 |  | 76,806,615 |  | 80,619,563 |  | 80,646,946 | 99\% | 4.96\% | 5.00\% |
| 24 | 649 |  | 76,744,898 |  | 80,763,880 |  | 80,965,867 | 95\% | 5.24\% | 5.50\% |
| 25 | 674 |  | 80,771,129 |  | 84,477,424 |  | 84,809,685 | 92\% | 4.59\% | 5.00\% |
| 26 | 664 |  | 80,489,115 |  | 83,697,092 |  | 84,513,571 | 80\% | 3.99\% | 5.00\% |
| 27 | 627 |  | 76,305,957 |  | 78,955,335 |  | 79,358,195 | 87\% | 3.47\% | 4.00\% |
| 28 | 610 |  | 74,586,578 |  | 77,836,868 |  | 77,570,041 | 109\% | 4.36\% | 4.00\% |
| 29 | 463 |  | 59,473,504 |  | 59,943,818 |  | 61,852,444 | 20\% | 0.79\% | 4.00\% |
| 30+ | 1,481 |  | 203,782,580 |  | 208,921,071 |  | 210,914,970 | 72\% | 2.52\% | 3.50\% |
| Total | 41,836 |  | 4,133,082,687 |  | 4,425,506,913 |  | 4,383,021,816 | 117\% | 7.08\% | 6.05\% |

# NEW YORK CITY FIRE DEPARTMENT PENSION FUND MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN 



The rates for expected merit salary increases are based on actual rates of increase for total salary, adjusted for inflation of $2.00 \%$. Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

# NEW YORK CITY FIRE DEPARTMENT PENSION FUND MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN 



[^28]
## NEW YORK CITY FIRE DEPARTMENT PENSION FUND TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

TABLE 9A

| Service | Life Years <br> Exposed | Total Salary BOY |  | Actual Salary EOY |  | Expected Salary EOY |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 2,409 | \$ | 95,355,662 | \$ | 114,971,563 | \$ | 102,984,115 | 257\% | 20.57\% | 8.00\% |
| 1 | 4,519 |  | 199,137,448 |  | 224,533,973 |  | 223,033,942 | 106\% | 12.75\% | 12.00\% |
| 2 | 4,920 |  | 239,404,557 |  | 268,614,320 |  | 270,527,149 | 94\% | 12.20\% | 13.00\% |
| 3 | 5,248 |  | 282,550,902 |  | 315,506,283 |  | 319,282,519 | 90\% | 11.66\% | 13.00\% |
| 4 | 5,787 |  | 340,093,274 |  | 427,268,667 |  | 506,738,978 | 52\% | 25.63\% | 49.00\% |
| 5 | 5,919 |  | 423,034,669 |  | 501,875,273 |  | 439,956,056 | 466\% | 18.64\% | 4.00\% |
| 6 | 5,656 |  | 462,307,967 |  | 490,124,012 |  | 481,262,594 | 147\% | 6.02\% | 4.10\% |
| 7 | 5,441 |  | 453,996,251 |  | 479,865,859 |  | 473,064,094 | 136\% | 5.70\% | 4.20\% |
| 8 | 5,233 |  | 440,264,689 |  | 464,835,286 |  | 459,196,071 | 130\% | 5.58\% | 4.30\% |
| 9 | 4,991 |  | 423,414,287 |  | 447,235,696 |  | 447,548,901 | 99\% | 5.63\% | 5.70\% |
| 10 | 4,637 |  | 396,185,507 |  | 420,322,551 |  | 414,013,855 | 135\% | 6.09\% | 4.50\% |
| 11 | 4,111 |  | 357,443,494 |  | 377,649,834 |  | 373,885,895 | 123\% | 5.65\% | 4.60\% |
| 12 | 3,885 |  | 339,796,267 |  | 358,950,614 |  | 355,766,692 | 120\% | 5.64\% | 4.70\% |
| 13 | 3,987 |  | 349,683,596 |  | 369,617,760 |  | 366,468,409 | 119\% | 5.70\% | 4.80\% |
| 14 | 3,695 |  | 327,581,420 |  | 349,260,426 |  | 347,563,887 | 108\% | 6.62\% | 6.10\% |
| 15 | 3,399 |  | 308,563,194 |  | 327,397,685 |  | 323,991,354 | 122\% | 6.10\% | 5.00\% |
| 16 | 3,319 |  | 307,939,877 |  | 325,163,885 |  | 323,028,931 | 114\% | 5.59\% | 4.90\% |
| 17 | 3,207 |  | 297,581,426 |  | 315,069,662 |  | 311,865,334 | 122\% | 5.88\% | 4.80\% |
| 18 | 3,165 |  | 294,026,446 |  | 311,598,187 |  | 307,845,689 | 127\% | 5.98\% | 4.70\% |
| 19 | 3,019 |  | 283,830,547 |  | 303,673,546 |  | 300,292,719 | 121\% | 6.99\% | 5.80\% |
| 20 | 2,597 |  | 248,912,946 |  | 264,705,460 |  | 260,114,029 | 141\% | 6.34\% | 4.50\% |
| 21 | 2,569 |  | 252,143,124 |  | 263,802,717 |  | 263,237,421 | 105\% | 4.62\% | 4.40\% |
| 22 | 2,455 |  | 240,450,271 |  | 252,489,583 |  | 250,789,633 | 116\% | 5.01\% | 4.30\% |
| 23 | 2,035 |  | 202,745,333 |  | 212,809,139 |  | 211,260,637 | 118\% | 4.96\% | 4.20\% |
| 24 | 1,941 |  | 198,130,621 |  | 209,073,516 |  | 206,253,976 | 135\% | 5.52\% | 4.10\% |
| 25 | 1,787 |  | 188,962,226 |  | 198,584,505 |  | 196,520,715 | 127\% | 5.09\% | 4.00\% |
| 26 | 1,576 |  | 173,207,651 |  | 181,060,536 |  | 179,962,749 | 116\% | 4.53\% | 3.90\% |
| 27 | 1,301 |  | 147,932,822 |  | 152,928,498 |  | 153,554,269 | 89\% | 3.38\% | 3.80\% |
| 28 | 1,025 |  | 119,797,996 |  | 124,765,913 |  | 124,230,522 | 112\% | 4.15\% | 3.70\% |
| 29 | 814 |  | 97,993,006 |  | 100,220,637 |  | 101,520,754 | 63\% | 2.27\% | 3.60\% |
| 30+ | 2,428 |  | 311,734,897 |  | 321,409,494 |  | 322,645,618 | 89\% | 3.10\% | 3.50\% |
| Total | 107,075 |  | 8,804,202,373 |  | 9,475,385,080 |  | 9,418,407,506 | 109\% | 7.62\% | 6.98\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

TABLE 9A

| Service | Life Years Exposed | Total Salary BOY |  | Actual Salary EOY |  | Proposed Salary EOY |  | Actual / Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 2,409 | \$ | 95,355,662 | \$ | 114,971,563 | \$ | 107,751,898 | 158\% | 20.57\% | 13.00\% |
| 1 | 4,519 |  | 199,137,448 |  | 224,533,973 |  | 223,033,942 | 106\% | 12.75\% | 12.00\% |
| 2 | 4,920 |  | 239,404,557 |  | 268,614,320 |  | 268,133,104 | 102\% | 12.20\% | 12.00\% |
| 3 | 5,248 |  | 282,550,902 |  | 315,506,283 |  | 316,457,010 | 97\% | 11.66\% | 12.00\% |
| 4 | 5,787 |  | 340,093,274 |  | 427,268,667 |  | 452,324,054 | 78\% | 25.63\% | 33.00\% |
| 5 | 5,919 |  | 423,034,669 |  | 501,875,273 |  | 442,071,229 | 414\% | 18.64\% | 4.50\% |
| 6 | 5,656 |  | 462,307,967 |  | 490,124,012 |  | 483,111,826 | 134\% | 6.02\% | 4.50\% |
| 7 | 5,441 |  | 453,996,251 |  | 479,865,859 |  | 474,426,082 | 127\% | 5.70\% | 4.50\% |
| 8 | 5,233 |  | 440,264,689 |  | 464,835,286 |  | 460,076,600 | 124\% | 5.58\% | 4.50\% |
| 9 | 4,991 |  | 423,414,287 |  | 447,235,696 |  | 446,702,073 | 102\% | 5.63\% | 5.50\% |
| 10 | 4,637 |  | 396,185,507 |  | 420,322,551 |  | 415,994,782 | 122\% | 6.09\% | 5.00\% |
| 11 | 4,111 |  | 357,443,494 |  | 377,649,834 |  | 375,315,669 | 113\% | 5.65\% | 5.00\% |
| 12 | 3,885 |  | 339,796,267 |  | 358,950,614 |  | 356,786,080 | 113\% | 5.64\% | 5.00\% |
| 13 | 3,987 |  | 349,683,596 |  | 369,617,760 |  | 367,167,776 | 114\% | 5.70\% | 5.00\% |
| 14 | 3,695 |  | 327,581,420 |  | 349,260,426 |  | 347,236,305 | 110\% | 6.62\% | 6.00\% |
| 15 | 3,399 |  | 308,563,194 |  | 327,397,685 |  | 323,991,354 | 122\% | 6.10\% | 5.00\% |
| 16 | 3,319 |  | 307,939,877 |  | 325,163,885 |  | 323,336,871 | 112\% | 5.59\% | 5.00\% |
| 17 | 3,207 |  | 297,581,426 |  | 315,069,662 |  | 312,460,497 | 118\% | 5.88\% | 5.00\% |
| 18 | 3,165 |  | 294,026,446 |  | 311,598,187 |  | 308,727,768 | 120\% | 5.98\% | 5.00\% |
| 19 | 3,019 |  | 283,830,547 |  | 303,673,546 |  | 303,698,685 | 100\% | 6.99\% | 7.00\% |
| 20 | 2,597 |  | 248,912,946 |  | 264,705,460 |  | 261,358,593 | 127\% | 6.34\% | 5.00\% |
| 21 | 2,569 |  | 252,143,124 |  | 263,802,717 |  | 264,750,280 | 92\% | 4.62\% | 5.00\% |
| 22 | 2,455 |  | 240,450,271 |  | 252,489,583 |  | 252,472,785 | 100\% | 5.01\% | 5.00\% |
| 23 | 2,035 |  | 202,745,333 |  | 212,809,139 |  | 212,882,600 | 99\% | 4.96\% | 5.00\% |
| 24 | 1,941 |  | 198,130,621 |  | 209,073,516 |  | 209,027,805 | 100\% | 5.52\% | 5.50\% |
| 25 | 1,787 |  | 188,962,226 |  | 198,584,505 |  | 198,410,337 | 102\% | 5.09\% | 5.00\% |
| 26 | 1,576 |  | 173,207,651 |  | 181,060,536 |  | 181,868,034 | 91\% | 4.53\% | 5.00\% |
| 27 | 1,301 |  | 147,932,822 |  | 152,928,498 |  | 153,850,135 | 84\% | 3.38\% | 4.00\% |
| 28 | 1,025 |  | 119,797,996 |  | 124,765,913 |  | 124,589,916 | 104\% | 4.15\% | 4.00\% |
| 29 | 814 |  | 97,993,006 |  | 100,220,637 |  | 101,912,726 | 57\% | 2.27\% | 4.00\% |
| 30+ | 2,428 |  | 311,734,897 |  | 321,409,494 |  | 322,645,618 | 89\% | 3.10\% | 3.50\% |
| Total | 107,075 |  | 8,804,202,373 |  | 9,475,385,080 |  | 9,392,572,435 | 114\% | 7.62\% | 6.68\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

TABLE 9B
10-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Total Salary BOY |  | Estimated Actual Merit Salary EOY |  | Expected Merit Salary EOY |  | Actual / Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 2,409 | \$ | 95,355,662 | \$ | 112,012,229 | \$ | 100,123,445 | 349\% | 17.47\% | 5.00\% |
| 1 | 4,519 |  | 199,137,448 |  | 218,353,803 |  | 217,059,818 | 107\% | 9.65\% | 9.00\% |
| 2 | 4,920 |  | 239,404,557 |  | 261,184,473 |  | 263,345,013 | 91\% | 9.10\% | 10.00\% |
| 3 | 5,248 |  | 282,550,902 |  | 306,737,402 |  | 310,805,992 | 86\% | 8.56\% | 10.00\% |
| 4 | 5,787 |  | 340,093,274 |  | 416,713,976 |  | 496,536,180 | 49\% | 22.53\% | 46.00\% |
| 5 | 5,919 |  | 423,034,669 |  | 488,746,522 |  | 427,265,016 | 1553\% | 15.53\% | 1.00\% |
| 6 | 5,656 |  | 462,307,967 |  | 475,776,426 |  | 467,393,355 | 265\% | 2.91\% | 1.10\% |
| 7 | 5,441 |  | 453,996,251 |  | 465,776,224 |  | 459,444,206 | 216\% | 2.59\% | 1.20\% |
| 8 | 5,233 |  | 440,264,689 |  | 451,171,806 |  | 445,988,130 | 191\% | 2.48\% | 1.30\% |
| 9 | 4,991 |  | 423,414,287 |  | 434,095,163 |  | 434,846,473 | 93\% | 2.52\% | 2.70\% |
| 10 | 4,637 |  | 396,185,507 |  | 408,027,055 |  | 402,128,290 | 199\% | 2.99\% | 1.50\% |
| 11 | 4,111 |  | 357,443,494 |  | 366,556,685 |  | 363,162,590 | 159\% | 2.55\% | 1.60\% |
| 12 | 3,885 |  | 339,796,267 |  | 348,405,141 |  | 345,572,804 | 149\% | 2.53\% | 1.70\% |
| 13 | 3,987 |  | 349,683,596 |  | 358,765,437 |  | 355,977,901 | 144\% | 2.60\% | 1.80\% |
| 14 | 3,695 |  | 327,581,420 |  | 339,094,037 |  | 337,736,444 | 113\% | 3.51\% | 3.10\% |
| 15 | 3,399 |  | 308,563,194 |  | 317,821,521 |  | 314,734,458 | 150\% | 3.00\% | 2.00\% |
| 16 | 3,319 |  | 307,939,877 |  | 315,607,065 |  | 313,790,735 | 131\% | 2.49\% | 1.90\% |
| 17 | 3,207 |  | 297,581,426 |  | 305,834,314 |  | 302,937,892 | 154\% | 2.77\% | 1.80\% |
| 18 | 3,165 |  | 294,026,446 |  | 302,473,166 |  | 299,024,896 | 169\% | 2.87\% | 1.70\% |
| 19 | 3,019 |  | 283,830,547 |  | 294,864,952 |  | 291,777,802 | 139\% | 3.89\% | 2.80\% |
| 20 | 2,597 |  | 248,912,946 |  | 256,980,523 |  | 252,646,640 | 216\% | 3.24\% | 1.50\% |
| 21 | 2,569 |  | 252,143,124 |  | 255,977,532 |  | 255,673,128 | 109\% | 1.52\% | 1.40\% |
| 22 | 2,455 |  | 240,450,271 |  | 245,027,283 |  | 243,576,125 | 146\% | 1.90\% | 1.30\% |
| 23 | 2,035 |  | 202,745,333 |  | 206,517,000 |  | 205,178,277 | 155\% | 1.86\% | 1.20\% |
| 24 | 1,941 |  | 198,130,621 |  | 202,924,593 |  | 200,310,058 | 220\% | 2.42\% | 1.10\% |
| 25 | 1,787 |  | 188,962,226 |  | 192,720,120 |  | 190,851,848 | 199\% | 1.99\% | 1.00\% |
| 26 | 1,576 |  | 173,207,651 |  | 175,685,090 |  | 174,766,520 | 159\% | 1.43\% | 0.90\% |
| 27 | 1,301 |  | 147,932,822 |  | 148,337,448 |  | 149,116,285 | 34\% | 0.27\% | 0.80\% |
| 28 | 1,025 |  | 119,797,996 |  | 121,048,019 |  | 120,636,582 | 149\% | 1.04\% | 0.70\% |
| 29 | 814 |  | 97,993,006 |  | 97,179,454 |  | 98,580,964 | -138\% | -0.83\% | 0.60\% |
| 30+ | 2,428 |  | 311,734,897 |  | 311,734,897 |  | 313,293,571 |  | 0.00\% | 0.50\% |
| Total | 107,075 |  | 8,804,202,373 |  | 9,202,149,357 |  | 9,154,281,435 | 114\% | 4.52\% | 3.98\% |

The rates for expected merit salary increases are based on actual rates of increase for total salary, adjusted for inflation of $2.43 \%$. Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND MERIT SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

TABLE 9B

|  | Total Salary BOY |  | Estimated Actual Merit <br> Salary EOY |  | Proposed Merit Salary EOY |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Life Years Exposed |  |  | Actual \% | Proposed \% |  |  |  |
| (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 2,409 | \$ | 95,355,662 | \$ | 112,012,229 | \$ | 104,891,228 | 175\% | 17.47\% | 10.00\% |
| 4,519 |  | 199,137,448 |  | 218,353,803 |  | 217,059,818 | 107\% | 9.65\% | 9.00\% |
| 4,920 |  | 239,404,557 |  | 261,184,473 |  | 260,950,967 | 101\% | 9.10\% | 9.00\% |
| 5,248 |  | 282,550,902 |  | 306,737,402 |  | 307,980,483 | 95\% | 8.56\% | 9.00\% |
| 5,787 |  | 340,093,274 |  | 416,713,976 |  | 442,121,256 | 75\% | 22.53\% | 30.00\% |
| 5,919 |  | 423,034,669 |  | 488,746,522 |  | 429,380,189 | 1036\% | 15.53\% | 1.50\% |
| 5,656 |  | 462,307,967 |  | 475,776,426 |  | 469,242,587 | 194\% | 2.91\% | 1.50\% |
| 5,441 |  | 453,996,251 |  | 465,776,224 |  | 460,806,195 | 173\% | 2.59\% | 1.50\% |
| 5,233 |  | 440,264,689 |  | 451,171,806 |  | 446,868,659 | 165\% | 2.48\% | 1.50\% |
| 4,991 |  | 423,414,287 |  | 434,095,163 |  | 433,999,644 | 101\% | 2.52\% | 2.50\% |
| 4,637 |  | 396,185,507 |  | 408,027,055 |  | 404,109,217 | 149\% | 2.99\% | 2.00\% |
| 4,111 |  | 357,443,494 |  | 366,556,685 |  | 364,592,364 | 127\% | 2.55\% | 2.00\% |
| 3,885 |  | 339,796,267 |  | 348,405,141 |  | 346,592,192 | 127\% | 2.53\% | 2.00\% |
| 3,987 |  | 349,683,596 |  | 358,765,437 |  | 356,677,268 | 130\% | 2.60\% | 2.00\% |
| 3,695 |  | 327,581,420 |  | 339,094,037 |  | 337,408,863 | 117\% | 3.51\% | 3.00\% |
| 3,399 |  | 308,563,194 |  | 317,821,521 |  | 314,734,458 | 150\% | 3.00\% | 2.00\% |
| 3,319 |  | 307,939,877 |  | 315,607,065 |  | 314,098,675 | 124\% | 2.49\% | 2.00\% |
| 3,207 |  | 297,581,426 |  | 305,834,314 |  | 303,533,055 | 139\% | 2.77\% | 2.00\% |
| 3,165 |  | 294,026,446 |  | 302,473,166 |  | 299,906,975 | 144\% | 2.87\% | 2.00\% |
| 3,019 |  | 283,830,547 |  | 294,864,952 |  | 295,183,769 | 97\% | 3.89\% | 4.00\% |
| 2,597 |  | 248,912,946 |  | 256,980,523 |  | 253,891,205 | 162\% | 3.24\% | 2.00\% |
| 2,569 |  | 252,143,124 |  | 255,977,532 |  | 257,185,986 | 76\% | 1.52\% | 2.00\% |
| 2,455 |  | 240,450,271 |  | 245,027,283 |  | 245,259,276 | 95\% | 1.90\% | 2.00\% |
| 2,035 |  | 202,745,333 |  | 206,517,000 |  | 206,800,240 | 93\% | 1.86\% | 2.00\% |
| 1,941 |  | 198,130,621 |  | 202,924,593 |  | 203,083,887 | 97\% | 2.42\% | 2.50\% |
| 1,787 |  | 188,962,226 |  | 192,720,120 |  | 192,741,471 | 99\% | 1.99\% | 2.00\% |
| 1,576 |  | 173,207,651 |  | 175,685,090 |  | 176,671,804 | 72\% | 1.43\% | 2.00\% |
| 1,301 |  | 147,932,822 |  | 148,337,448 |  | 149,412,150 | 27\% | 0.27\% | 1.00\% |
| 1,025 |  | 119,797,996 |  | 121,048,019 |  | 120,995,976 | 104\% | 1.04\% | 1.00\% |
| 814 |  | 97,993,006 |  | 97,179,454 |  | 98,972,936 | -83\% | -0.83\% | 1.00\% |
| 2,428 |  | 311,734,897 |  | 311,734,897 |  | 313,293,571 |  | 0.00\% | 0.50\% |
| 107,075 |  | 8,804,202,373 |  | 9,202,149,357 |  | 9,128,446,364 | 123\% | 4.52\% | 3.68\% |

Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND TOTAL SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Plan Year Ending June 30, | TABLE 9C <br> Life Years Exposed | Total Salary BOY |  | Actual Salary EOY |  | Expected SalaryEOY |  | 10-YEAR PERIOD ENDING 6/30/2013 <br> Increase \% |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual / Expected | Actual <br> (4) / (3) |  |  | Expected $(5) /(3)$ |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (5) | (6) | (7) |
| 2004 | 10,337 | \$ | 648,662,351 | \$ | 739,034,389 | \$ | 696,433,972 | 189\% | 13.93\% | 7.36\% |
| 2005 | 10,716 |  | 737,351,429 |  | 783,613,041 |  | 789,551,869 | 89\% | 6.27\% | 7.08\% |
| 2006 | 10,915 |  | 772,031,077 |  | 812,221,453 |  | 831,118,630 | 68\% | 5.21\% | 7.65\% |
| 2007 | 11,070 |  | 791,940,201 |  | 844,891,254 |  | 854,765,621 | 84\% | 6.69\% | 7.93\% |
| 2008 | 11,039 |  | 821,153,226 |  | 918,114,578 |  | 886,858,722 | 148\% | 11.81\% | 8.00\% |
| 2009 | 11,162 |  | 899,981,402 |  | 952,003,452 |  | 967,706,425 | 77\% | 5.78\% | 7.53\% |
| 2010 | 11,059 |  | 926,229,845 |  | 1,110,985,559 |  | 992,824,568 | 277\% | 19.95\% | 7.19\% |
| 2011 | 10,638 |  | 1,063,935,711 |  | 1,124,268,241 |  | 1,132,456,758 | 88\% | 5.67\% | 6.44\% |
| 2012 | 10,257 |  | 1,080,790,750 |  | 1,105,143,815 |  | 1,146,640,448 | 37\% | 2.25\% | 6.09\% |
| 2013 | 9,882 |  | 1,062,126,381 |  | 1,085,109,298 |  | 1,120,050,492 | 40\% | 2.16\% | 5.45\% |
| Total | 107,075 |  | 8,804,202,373 |  | 9,475,385,080 |  | 9,418,407,506 | 109\% | 7.62\% | 6.98\% |

NEW YORK CITY FIRE DEPARTMENT PENSION FUND
CONTRACTUAL AND ACTUAL SALARY EXPERIENCE OF ACTIVE MEMBERS MEN AND WOMEN

| Plan <br> Year <br> Ending <br> June 30, | Actual Salary Increase | Contracted Salary Increase | 10-YEAR PERIOD ENDING 6/30/2013 |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | Settled | Total Salary |
|  |  |  |  | Increase |
|  |  |  | Salary Increase | $(3)+(4)$ |
| (1) | (2) | (3) | (4) | (5) |
| 2004 | 10.57\% | 5.00\% | 0.00\% | 5.00\% |
| 2005 | 3.44\% | 5.00\% | 0.00\% | 5.00\% |
| 2006 | 2.83\% | 3.00\% | 0.00\% | 3.00\% |
| 2007 | 1.31\% | 3.15\% | 0.00\% | 3.15\% |
| 2008 | 4.32\% | 4.00\% | 0.00\% | 4.00\% |
| 2009 | 3.61\% | 4.00\% | 0.00\% | 4.00\% |
| 2010 | 17.41\% | 4.00\% | 13.10\% | 17.10\% |
| 2011 | -1.82\% | 4.00\% | 0.00\% | 4.00\% |
| 2012 | -0.21\% | 0.00\% | 0.00\% | 0.00\% |
| 2013 | -0.39\% | 0.00\% | 0.00\% | 0.00\% |
| Average | 4.11\% |  |  | 4.53\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND <br> OVERTIME PAY EXPERIENCE FOR ALL YEARS MEN AND WOMEN

| Service | Life Years Exposed | TABLE 10A |  |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 19 | \$ | 644,962 | \$ | 59,205 | \$ | 96,744 | 61\% | 9.18\% | 15.00\% |
| 1 | 433 |  | 15,417,950 |  | 1,624,503 |  | 2,312,693 | 70\% | 10.54\% | 15.00\% |
| 2 | 897 |  | 36,439,790 |  | 4,757,814 |  | 5,465,968 | 87\% | 13.06\% | 15.00\% |
| 3 | 1,410 |  | 67,396,469 |  | 10,952,481 |  | 10,109,470 | 108\% | 16.25\% | 15.00\% |
| 4 | 2,108 |  | 116,225,865 |  | 20,606,256 |  | 17,433,880 | 118\% | 17.73\% | 15.00\% |
| 5 | 2,479 |  | 175,620,222 |  | 27,692,028 |  | 26,343,033 | 105\% | 15.77\% | 15.00\% |
| 6 | 2,648 |  | 213,248,883 |  | 39,153,345 |  | 31,987,332 | 122\% | 18.36\% | 15.00\% |
| 7 | 2,784 |  | 227,904,692 |  | 44,753,825 |  | 34,185,704 | 131\% | 19.64\% | 15.00\% |
| 8 | 2,657 |  | 222,079,223 |  | 42,612,506 |  | 33,311,883 | 128\% | 19.19\% | 15.00\% |
| 9 | 2,338 |  | 199,127,574 |  | 38,698,891 |  | 29,869,136 | 130\% | 19.43\% | 15.00\% |
| 10 | 2,139 |  | 182,552,463 |  | 36,072,336 |  | 27,382,870 | 132\% | 19.76\% | 15.00\% |
| 11 | 1,909 |  | 164,641,903 |  | 31,407,085 |  | 24,696,285 | 127\% | 19.08\% | 15.00\% |
| 12 | 1,692 |  | 148,514,454 |  | 28,181,014 |  | 22,277,168 | 127\% | 18.98\% | 15.00\% |
| 13 | 1,650 |  | 147,132,923 |  | 28,987,455 |  | 22,069,938 | 131\% | 19.70\% | 15.00\% |
| 14 | 1,514 |  | 136,313,613 |  | 25,742,670 |  | 20,447,042 | 126\% | 18.88\% | 15.00\% |
| 15 | 1,396 |  | 128,306,001 |  | 23,097,995 |  | 19,245,900 | 120\% | 18.00\% | 15.00\% |
| 16 | 1,432 |  | 134,388,056 |  | 25,724,619 |  | 20,158,208 | 128\% | 19.14\% | 15.00\% |
| 17 | 1,175 |  | 113,110,744 |  | 22,062,373 |  | 16,966,612 | 130\% | 19.51\% | 15.00\% |
| 18 | 1,122 |  | 106,815,216 |  | 21,202,878 |  | 17,090,434 | 124\% | 19.85\% | 16.00\% |
| 19 | 1,182 |  | 111,633,846 |  | 22,355,835 |  | 18,977,754 | 118\% | 20.03\% | 17.00\% |
| 20 | 931 |  | 89,325,906 |  | 17,678,389 |  | 16,078,663 | 110\% | 19.79\% | 18.00\% |
| 21 | 901 |  | 89,266,129 |  | 18,842,596 |  | 15,175,242 | 124\% | 21.11\% | 17.00\% |
| 22 | 755 |  | 74,591,709 |  | 16,164,269 |  | 11,934,673 | 135\% | 21.67\% | 16.00\% |
| 23 | 606 |  | 59,482,154 |  | 12,789,765 |  | 8,922,323 | 143\% | 21.50\% | 15.00\% |
| 24 | 577 |  | 57,521,836 |  | 12,145,466 |  | 8,053,057 | 151\% | 21.11\% | 14.00\% |
| 25 | 578 |  | 58,222,407 |  | 12,290,144 |  | 7,568,913 | 162\% | 21.11\% | 13.00\% |
| 26 | 555 |  | 56,450,026 |  | 12,397,306 |  | 6,774,003 | 183\% | 21.96\% | 12.00\% |
| 27 | 518 |  | 53,109,550 |  | 11,452,051 |  | 5,842,051 | 196\% | 21.56\% | 11.00\% |
| 28 | 483 |  | 49,550,075 |  | 10,742,118 |  | 4,955,007 | 217\% | 21.68\% | 10.00\% |
| 29 | 351 |  | 37,470,253 |  | 8,308,118 |  | 3,372,323 | 246\% | 22.17\% | 9.00\% |
| 30 | 285 |  | 30,081,631 |  | 6,728,467 |  | 2,406,530 | 280\% | 22.37\% | 8.00\% |
| 31 | 213 |  | 23,197,304 |  | 5,204,833 |  | 1,623,811 | 321\% | 22.44\% | 7.00\% |
| 32 | 136 |  | 15,103,072 |  | 3,232,049 |  | 906,184 | 357\% | 21.40\% | 6.00\% |
| 33 | 99 |  | 11,199,447 |  | 2,692,368 |  | 559,972 | 481\% | 24.04\% | 5.00\% |
| 34 | 50 |  | 5,670,931 |  | 1,436,128 |  | 283,547 | 506\% | 25.32\% | 5.00\% |
| 35 | 23 |  | 2,516,833 |  | 455,271 |  | 125,842 | 362\% | 18.09\% | 5.00\% |
| 36 | 20 |  | 2,152,646 |  | 352,274 |  | 107,632 | 327\% | 16.36\% | 5.00\% |
| 37 | 14 |  | 1,580,577 |  | 298,240 |  | 79,029 | 377\% | 18.87\% | 5.00\% |
| 38 | 12 |  | 1,287,275 |  | 307,263 |  | 64,364 | 477\% | 23.87\% | 5.00\% |
| 39 | 8 |  | 840,714 |  | 199,913 |  | 42,036 | 476\% | 23.78\% | 5.00\% |
| 40 | 5 |  | 525,627 |  | 70,277 |  | 26,281 | 267\% | 13.37\% | 5.00\% |
| 41 | 3 |  | 312,065 |  | 35,059 |  | 15,603 | 225\% | 11.23\% | 5.00\% |
| 42 | 3 |  | 288,487 |  | 53,273 |  | 14,424 | 369\% | 18.47\% | 5.00\% |
| 43 | 1 |  | 123,075 |  | 9,306 |  | 6,154 | 151\% | 7.56\% | 5.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 5.00\% |
| 45 | 0 |  | - |  | - - |  | - |  |  | 5.00\% |
| Total | 40,111 |  | 3,367,384,575 |  | 649,630,057 |  | 495,365,721 | 131\% | 19.29\% | 14.71\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND <br> OVERTIME PAY EXPERIENCE FOR ALL YEARS MEN AND WOMEN

| Service | TABLE 10A |  |  |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual / <br> Proposed | Increase \% |  |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 19 | \$ | 644,962 | \$ | 59,205 | \$ | 109,643 | 54\% | 9.18\% | 17.00\% |
| 1 | 433 |  | 15,417,950 |  | 1,624,503 |  | 2,621,052 | 62\% | 10.54\% | 17.00\% |
| 2 | 897 |  | 36,439,790 |  | 4,757,814 |  | 6,194,764 | 77\% | 13.06\% | 17.00\% |
| 3 | 1,410 |  | 67,396,469 |  | 10,952,481 |  | 11,457,400 | 96\% | 16.25\% | 17.00\% |
| 4 | 2,108 |  | 116,225,865 |  | 20,606,256 |  | 19,758,397 | 104\% | 17.73\% | 17.00\% |
| 5 | 2,479 |  | 175,620,222 |  | 27,692,028 |  | 29,855,438 | 93\% | 15.77\% | 17.00\% |
| 6 | 2,648 |  | 213,248,883 |  | 39,153,345 |  | 36,252,310 | 108\% | 18.36\% | 17.00\% |
| 7 | 2,784 |  | 227,904,692 |  | 44,753,825 |  | 38,743,798 | 116\% | 19.64\% | 17.00\% |
| 8 | 2,657 |  | 222,079,223 |  | 42,612,506 |  | 37,753,468 | 113\% | 19.19\% | 17.00\% |
| 9 | 2,338 |  | 199,127,574 |  | 38,698,891 |  | 33,851,688 | 114\% | 19.43\% | 17.00\% |
| 10 | 2,139 |  | 182,552,463 |  | 36,072,336 |  | 31,033,919 | 116\% | 19.76\% | 17.00\% |
| 11 | 1,909 |  | 164,641,903 |  | 31,407,085 |  | 27,989,123 | 112\% | 19.08\% | 17.00\% |
| 12 | 1,692 |  | 148,514,454 |  | 28,181,014 |  | 25,247,457 | 112\% | 18.98\% | 17.00\% |
| 13 | 1,650 |  | 147,132,923 |  | 28,987,455 |  | 25,012,597 | 116\% | 19.70\% | 17.00\% |
| 14 | 1,514 |  | 136,313,613 |  | 25,742,670 |  | 23,173,314 | 111\% | 18.88\% | 17.00\% |
| 15 | 1,396 |  | 128,306,001 |  | 23,097,995 |  | 21,812,020 | 106\% | 18.00\% | 17.00\% |
| 16 | 1,432 |  | 134,388,056 |  | 25,724,619 |  | 22,845,969 | 113\% | 19.14\% | 17.00\% |
| 17 | 1,175 |  | 113,110,744 |  | 22,062,373 |  | 19,228,827 | 115\% | 19.51\% | 17.00\% |
| 18 | 1,122 |  | 106,815,216 |  | 21,202,878 |  | 18,158,587 | 117\% | 19.85\% | 17.00\% |
| 19 | 1,182 |  | 111,633,846 |  | 22,355,835 |  | 18,977,754 | 118\% | 20.03\% | 17.00\% |
| 20 | 931 |  | 89,325,906 |  | 17,678,389 |  | 15,185,404 | 116\% | 19.79\% | 17.00\% |
| 21 | 901 |  | 89,266,129 |  | 18,842,596 |  | 15,175,242 | 124\% | 21.11\% | 17.00\% |
| 22 | 755 |  | 74,591,709 |  | 16,164,269 |  | 12,680,590 | 127\% | 21.67\% | 17.00\% |
| 23 | 606 |  | 59,482,154 |  | 12,789,765 |  | 10,111,966 | 126\% | 21.50\% | 17.00\% |
| 24 | 577 |  | 57,521,836 |  | 12,145,466 |  | 9,778,712 | 124\% | 21.11\% | 17.00\% |
| 25 | 578 |  | 58,222,407 |  | 12,290,144 |  | 9,897,809 | 124\% | 21.11\% | 17.00\% |
| 26 | 555 |  | 56,450,026 |  | 12,397,306 |  | 9,596,504 | 129\% | 21.96\% | 17.00\% |
| 27 | 518 |  | 53,109,550 |  | 11,452,051 |  | 9,028,624 | 127\% | 21.56\% | 17.00\% |
| 28 | 483 |  | 49,550,075 |  | 10,742,118 |  | 8,423,513 | 128\% | 21.68\% | 17.00\% |
| 29 | 351 |  | 37,470,253 |  | 8,308,118 |  | 6,369,943 | 130\% | 22.17\% | 17.00\% |
| 30 | 285 |  | 30,081,631 |  | 6,728,467 |  | 5,113,877 | 132\% | 22.37\% | 17.00\% |
| 31 | 213 |  | 23,197,304 |  | 5,204,833 |  | 3,943,542 | 132\% | 22.44\% | 17.00\% |
| 32 | 136 |  | 15,103,072 |  | 3,232,049 |  | 2,567,522 | 126\% | 21.40\% | 17.00\% |
| 33 | 99 |  | 11,199,447 |  | 2,692,368 |  | 1,903,906 | 141\% | 24.04\% | 17.00\% |
| 34 | 50 |  | 5,670,931 |  | 1,436,128 |  | 964,058 | 149\% | 25.32\% | 17.00\% |
| 35 | 23 |  | 2,516,833 |  | 455,271 |  | 427,862 | 106\% | 18.09\% | 17.00\% |
| 36 | 20 |  | 2,152,646 |  | 352,274 |  | 365,950 | 96\% | 16.36\% | 17.00\% |
| 37 | 14 |  | 1,580,577 |  | 298,240 |  | 268,698 | 111\% | 18.87\% | 17.00\% |
| 38 | 12 |  | 1,287,275 |  | 307,263 |  | 218,837 | 140\% | 23.87\% | 17.00\% |
| 39 | 8 |  | 840,714 |  | 199,913 |  | 142,921 | 140\% | 23.78\% | 17.00\% |
| 40 | 5 |  | 525,627 |  | 70,277 |  | 89,357 | 79\% | 13.37\% | 17.00\% |
| 41 | 3 |  | 312,065 |  | 35,059 |  | 53,051 | 66\% | 11.23\% | 17.00\% |
| 42 | 3 |  | 288,487 |  | 53,273 |  | 49,043 | 109\% | 18.47\% | 17.00\% |
| 43 | 1 |  | 123,075 |  | 9,306 |  | 20,923 | 44\% | 7.56\% | 17.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 17.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 17.00\% |
| Total | 40,111 |  | 3,367,384,575 |  | 649,630,057 |  | 572,455,378 | 113\% | 19.29\% | 17.00\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND OVERTIME PAY EXPERIENCE BEFORE SERVICE RETIREMENT MEN AND WOMEN

TABLE 10B 4-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  | 0.00\% | 16.00\% |
| 1 | 0 |  | - |  | - |  | - |  | 0.00\% | 16.00\% |
| 2 | 0 |  | - |  | - |  | - |  | 0.00\% | 16.00\% |
| 3 | 0 |  | - |  | - |  | - |  | 0.00\% | 16.00\% |
| 4 | 0 |  | - |  | - |  | - |  | 0.00\% | 16.00\% |
| 5 | 0 |  | - |  | - |  | - |  | 0.00\% | 16.00\% |
| 6 | 0 |  | - |  | - |  | - |  | 0.00\% | 16.00\% |
| 7 | 0 |  | - |  | - |  | - |  | 0.00\% | 16.00\% |
| 8 | 0 |  | - |  | - |  | - |  | 0.00\% | 16.00\% |
| 9 | 0 |  | - |  | - |  | - |  | 0.00\% | 16.00\% |
| 10 | 0 |  | - |  | - |  | - |  | 0.00\% | 16.00\% |
| 11 | 0 |  | - |  | - |  | - |  | 0.00\% | 16.00\% |
| 12 | 0 |  | - |  | - |  | - |  | 0.00\% | 16.00\% |
| 13 | 0 |  | - |  | - |  | - |  | 0.00\% | 16.00\% |
| 14 | 0 |  | - |  | - |  | - |  | 0.00\% | 17.00\% |
| 15 | 0 |  | - |  | - |  | - |  | 0.00\% | 18.00\% |
| 16 | 0 |  | - |  | - |  | - |  | 0.00\% | 19.00\% |
| 17 | 0 |  | - |  | - |  | - |  | 0.00\% | 20.00\% |
| 18 | 0 |  | - |  | - |  | - |  | 0.00\% | 21.00\% |
| 19 | 0 |  | - |  | - |  | - |  | 0.00\% | 22.00\% |
| 20 | 54 | \$ | 4,405,241 | \$ | 1,399,162 | \$ | 1,013,205 | 138\% | 31.76\% | 23.00\% |
| 21 | 15 |  | 1,313,246 |  | 350,264 |  | 288,914 | 121\% | 26.67\% | 22.00\% |
| 22 | 22 |  | 2,076,381 |  | 630,501 |  | 436,040 | 145\% | 30.37\% | 21.00\% |
| 23 | 7 |  | 666,678 |  | 131,712 |  | 133,336 | 99\% | 19.76\% | 20.00\% |
| 24 | 9 |  | 806,525 |  | 139,287 |  | 153,240 | 91\% | 17.27\% | 19.00\% |
| 25 | 21 |  | 1,831,175 |  | 421,777 |  | 329,611 | 128\% | 23.03\% | 18.00\% |
| 26 | 21 |  | 1,930,916 |  | 433,211 |  | 308,947 | 140\% | 22.44\% | 16.00\% |
| 27 | 16 |  | 1,574,361 |  | 417,511 |  | 220,411 | 189\% | 26.52\% | 14.00\% |
| 28 | 16 |  | 1,524,292 |  | 350,302 |  | 182,915 | 192\% | 22.98\% | 12.00\% |
| 29 | 21 |  | 2,116,167 |  | 508,093 |  | 232,778 | 218\% | 24.01\% | 11.00\% |
| 30 | 11 |  | 1,064,469 |  | 215,801 |  | 106,447 | 203\% | 20.27\% | 10.00\% |
| 31 | 19 |  | 1,998,100 |  | 427,800 |  | 179,829 | 238\% | 21.41\% | 9.00\% |
| 32 | 5 |  | 543,322 |  | 142,143 |  | 43,466 | 327\% | 26.16\% | 8.00\% |
| 33 | 11 |  | 1,112,192 |  | 232,546 |  | 77,853 | 299\% | 20.91\% | 7.00\% |
| 34 | 4 |  | 398,275 |  | 141,471 |  | 23,896 | 592\% | 35.52\% | 6.00\% |
| 35 | 5 |  | 491,750 |  | 91,036 |  | 29,505 | 309\% | 18.51\% | 6.00\% |
| 36 | 0 |  | - |  | - |  | - |  | 0.00\% | 6.00\% |
| 37 | 2 |  | 225,920 |  | 30,870 |  | 13,555 | 228\% | 13.66\% | 6.00\% |
| 38 | 1 |  | 89,817 |  | 26,760 |  | 5,389 | 497\% | 29.79\% | 6.00\% |
| 39 | 2 |  | 249,857 |  | 52,933 |  | 14,991 | 353\% | 21.19\% | 6.00\% |
| 40 | 1 |  | 89,799 |  | 24,319 |  | 5,388 | 451\% | 27.08\% | 6.00\% |
| 41 | 0 |  | - |  | - |  | - |  | 0.00\% | 6.00\% |
| 42 | 0 |  | - |  | - |  | - |  | 0.00\% | 6.00\% |
| 43 | 0 |  | - |  | - |  | - |  | 0.00\% | 6.00\% |
| 44 | 1 |  | 114,386 |  | 17,515 |  | 6,863 | 255\% | 15.31\% | 6.00\% |
| 45 | 0 |  | - |  | - |  | - |  | 0.00\% | 6.00\% |
| Total | 264 |  | 24,622,867 |  | 6,185,014 |  | 3,806,580 | 162\% | 25.12\% | 15.46\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND OVERTIME PAY EXPERIENCE BEFORE SERVICE RETIREMENT MEN AND WOMEN

| Service | TABLE 10B |  |  |  |  |  |  | 4-YEAR PERIOD ENDING 6/30/2013 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Life Years Exposed | Salary during the Year |  | Actual Overtime |  |  |  | Actual / <br> Proposed | Increase \% |  |
|  |  |  |  | Proposed Overtime | Actual \% | Proposed \% |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | 5) | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  | 0.00\% | 24.00\% |
| 1 | 0 |  | - |  | - |  | - |  | 0.00\% | 24.00\% |
| 2 | 0 |  | - |  | - |  | - |  | 0.00\% | 24.00\% |
| 3 | 0 |  | - |  | - |  | - |  | 0.00\% | 24.00\% |
| 4 | 0 |  | - |  | - |  | - |  | 0.00\% | 24.00\% |
| 5 | 0 |  | - |  | - |  | - |  | 0.00\% | 24.00\% |
| 6 | 0 |  | - |  | - |  | - |  | 0.00\% | 24.00\% |
| 7 | 0 |  | - |  | - |  | - |  | 0.00\% | 24.00\% |
| 8 | 0 |  | - |  | - |  | - |  | 0.00\% | 24.00\% |
| 9 | 0 |  | - |  | - |  | - |  | 0.00\% | 24.00\% |
| 10 | 0 |  | - |  | - |  | - |  | 0.00\% | 24.00\% |
| 11 | 0 |  | - |  | - |  | - |  | 0.00\% | 24.00\% |
| 12 | 0 |  | - |  | - |  | - |  | 0.00\% | 24.00\% |
| 13 | 0 |  | - |  | - |  | - |  | 0.00\% | 24.00\% |
| 14 | 0 |  | - |  | - |  | - |  | 0.00\% | 24.00\% |
| 15 | 0 |  | - |  | - |  | - |  | 0.00\% | 24.00\% |
| 16 | 0 |  | - |  | - |  | - |  | 0.00\% | 24.00\% |
| 17 | 0 |  | - |  | - |  | - |  | 0.00\% | 24.00\% |
| 18 | 0 |  | - |  | - |  | - |  | 0.00\% | 24.00\% |
| 19 | 0 |  | - |  | - |  | - |  | 0.00\% | 24.00\% |
| 20 | 54 | \$ | 4,405,241 | \$ | 1,399,162 | \$ | 1,057,258 | 132\% | 31.76\% | 24.00\% |
| 21 | 15 |  | 1,313,246 |  | 350,264 |  | 315,179 | 111\% | 26.67\% | 24.00\% |
| 22 | 22 |  | 2,076,381 |  | 630,501 |  | 498,331 | 127\% | 30.37\% | 24.00\% |
| 23 | 7 |  | 666,678 |  | 131,712 |  | 160,003 | 82\% | 19.76\% | 24.00\% |
| 24 | 9 |  | 806,525 |  | 139,287 |  | 193,566 | 72\% | 17.27\% | 24.00\% |
| 25 | 21 |  | 1,831,175 |  | 421,777 |  | 439,482 | 96\% | 23.03\% | 24.00\% |
| 26 | 21 |  | 1,930,916 |  | 433,211 |  | 463,420 | 93\% | 22.44\% | 24.00\% |
| 27 | 16 |  | 1,574,361 |  | 417,511 |  | 377,847 | 110\% | 26.52\% | 24.00\% |
| 28 | 16 |  | 1,524,292 |  | 350,302 |  | 365,830 | 96\% | 22.98\% | 24.00\% |
| 29 | 21 |  | 2,116,167 |  | 508,093 |  | 507,880 | 100\% | 24.01\% | 24.00\% |
| 30 | 11 |  | 1,064,469 |  | 215,801 |  | 255,473 | 84\% | 20.27\% | 24.00\% |
| 31 | 19 |  | 1,998,100 |  | 427,800 |  | 479,544 | 89\% | 21.41\% | 24.00\% |
| 32 | 5 |  | 543,322 |  | 142,143 |  | 130,397 | 109\% | 26.16\% | 24.00\% |
| 33 | 11 |  | 1,112,192 |  | 232,546 |  | 266,926 | 87\% | 20.91\% | 24.00\% |
| 34 | 4 |  | 398,275 |  | 141,471 |  | 95,586 | 148\% | 35.52\% | 24.00\% |
| 35 | 5 |  | 491,750 |  | 91,036 |  | 118,020 | 77\% | 18.51\% | 24.00\% |
| 36 | 0 |  | - |  | - |  | - |  | 0.00\% | 24.00\% |
| 37 | 2 |  | 225,920 |  | 30,870 |  | 54,221 | 57\% | 13.66\% | 24.00\% |
| 38 | 1 |  | 89,817 |  | 26,760 |  | 21,556 | 124\% | 29.79\% | 24.00\% |
| 39 | 2 |  | 249,857 |  | 52,933 |  | 59,966 | 88\% | 21.19\% | 24.00\% |
| 40 | 1 |  | 89,799 |  | 24,319 |  | 21,552 | 113\% | 27.08\% | 24.00\% |
| 41 | 0 |  | - |  | - |  | - |  | 0.00\% | 24.00\% |
| 42 | 0 |  | - |  | - |  | - |  | 0.00\% | 24.00\% |
| 43 | 0 |  | - |  | - |  | - |  | 0.00\% | 24.00\% |
| 44 | 1 |  | 114,386 |  | 17,515 |  | 27,453 | 64\% | 15.31\% | 24.00\% |
| 45 | 0 |  | - |  | - |  | - |  | 0.00\% | 24.00\% |
| Total | 264 |  | 24,622,867 |  | 6,185,014 |  | 5,909,488 | 105\% | 25.12\% | 24.00\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND OVERTIME PAY EXPERIENCE BEFORE DISABLED RETIREMENT MEN AND WOMEN

TABLE 10C

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 1 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 2 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 3 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 4 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 5 | 4 | \$ | 231,605 | \$ | 32,242 | \$ | 34,741 | 93\% | 13.92\% | 15.00\% |
| 6 | 13 |  | 1,029,148 |  | 179,382 |  | 154,372 | 116\% | 17.43\% | 15.00\% |
| 7 | 18 |  | 1,482,527 |  | 272,768 |  | 222,379 | 123\% | 18.40\% | 15.00\% |
| 8 | 14 |  | 1,167,098 |  | 210,006 |  | 175,065 | 120\% | 17.99\% | 15.00\% |
| 9 | 30 |  | 2,520,308 |  | 471,441 |  | 378,046 | 125\% | 18.71\% | 15.00\% |
| 10 | 38 |  | 3,172,885 |  | 592,494 |  | 475,933 | 124\% | 18.67\% | 15.00\% |
| 11 | 31 |  | 2,588,471 |  | 538,849 |  | 388,271 | 139\% | 20.82\% | 15.00\% |
| 12 | 42 |  | 3,671,604 |  | 654,349 |  | 550,741 | 119\% | 17.82\% | 15.00\% |
| 13 | 56 |  | 4,852,357 |  | 962,371 |  | 727,854 | 132\% | 19.83\% | 15.00\% |
| 14 | 43 |  | 3,837,168 |  | 746,939 |  | 575,575 | 130\% | 19.47\% | 15.00\% |
| 15 | 44 |  | 3,778,640 |  | 630,229 |  | 566,796 | 111\% | 16.68\% | 15.00\% |
| 16 | 62 |  | 5,519,317 |  | 1,045,430 |  | 883,091 | 118\% | 18.94\% | 16.00\% |
| 17 | 50 |  | 4,489,174 |  | 793,416 |  | 763,159 | 104\% | 17.67\% | 17.00\% |
| 18 | 33 |  | 2,904,844 |  | 617,622 |  | 522,872 | 118\% | 21.26\% | 18.00\% |
| 19 | 62 |  | 5,231,969 |  | 1,120,686 |  | 994,074 | 113\% | 21.42\% | 19.00\% |
| 20 | 80 |  | 7,119,117 |  | 1,643,053 |  | 1,423,823 | 115\% | 23.08\% | 20.00\% |
| 21 | 60 |  | 5,753,627 |  | 1,269,560 |  | 1,093,189 | 116\% | 22.07\% | 19.00\% |
| 22 | 63 |  | 5,974,391 |  | 1,422,128 |  | 1,075,390 | 132\% | 23.80\% | 18.00\% |
| 23 | 40 |  | 3,782,244 |  | 785,197 |  | 642,981 | 122\% | 20.76\% | 17.00\% |
| 24 | 42 |  | 3,962,248 |  | 820,044 |  | 633,960 | 129\% | 20.70\% | 16.00\% |
| 25 | 46 |  | 4,528,519 |  | 1,020,020 |  | 679,278 | 150\% | 22.52\% | 15.00\% |
| 26 | 36 |  | 3,444,692 |  | 797,280 |  | 447,810 | 178\% | 23.15\% | 13.00\% |
| 27 | 46 |  | 4,734,321 |  | 1,053,078 |  | 520,775 | 202\% | 22.24\% | 11.00\% |
| 28 | 52 |  | 5,246,783 |  | 1,082,315 |  | 524,678 | 206\% | 20.63\% | 10.00\% |
| 29 | 36 |  | 3,821,260 |  | 728,188 |  | 343,913 | 212\% | 19.06\% | 9.00\% |
| 30 | 32 |  | 3,416,479 |  | 746,669 |  | 273,318 | 273\% | 21.85\% | 8.00\% |
| 31 | 23 |  | 2,511,676 |  | 495,189 |  | 175,817 | 282\% | 19.72\% | 7.00\% |
| 32 | 7 |  | 767,732 |  | 147,163 |  | 46,064 | 319\% | 19.17\% | 6.00\% |
| 33 | 7 |  | 756,017 |  | 125,018 |  | 37,801 | 331\% | 16.54\% | 5.00\% |
| 34 | 6 |  | 754,926 |  | 163,503 |  | 37,746 | 433\% | 21.66\% | 5.00\% |
| 35 | 3 |  | 348,096 |  | 119,015 |  | 17,405 | 684\% | 34.19\% | 5.00\% |
| 36 | 4 |  | 517,364 |  | 88,110 |  | 25,868 | 341\% | 17.03\% | 5.00\% |
| 37 | 2 |  | 262,623 |  | 22,031 |  | 13,131 | 168\% | 8.39\% | 5.00\% |
| 38 | 0 |  | - |  | - |  | - |  |  | 5.00\% |
| 39 | 0 |  | - |  | - |  | - |  |  | 5.00\% |
| 40 | 1 |  | 90,626 |  | 21,797 |  | 4,531 | 481\% | 24.05\% | 5.00\% |
| 41 | 2 |  | 280,102 |  | 57,124 |  | 14,005 | 408\% | 20.39\% | 5.00\% |
| 42 | 1 |  | 115,475 |  | 33,829 |  | 5,774 | 586\% | 29.30\% | 5.00\% |
| 43 | 2 |  | 198,366 |  | 50,201 |  | 9,918 | 506\% | 25.31\% | 5.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 5.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 5.00\% |
| Total | 1,131 |  | 4,863,797 |  | 21,558,736 |  | 15,460,146 | 139\% | 20.56\% | 14.74\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND OVERTIME PAY EXPERIENCE BEFORE DISABLED RETIREMENT MEN AND WOMEN



## NEW YORK CITY FIRE DEPARTMENT PENSION FUND <br> OVERTIME PAY EXPERIENCE FOR ALL YEARS MEN AND WOMEN

TABLE 10A

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 1,808 | \$ | 62,871,673 | \$ | 3,164,614 | \$ | 9,430,751 | 34\% | 5.03\% | 15.00\% |
| 1 | 4,468 |  | 171,141,581 |  | 21,196,477 |  | 25,671,237 | 83\% | 12.39\% | 15.00\% |
| 2 | 4,906 |  | 207,411,572 |  | 34,037,305 |  | 31,111,736 | 109\% | 16.41\% | 15.00\% |
| 3 | 5,229 |  | 244,527,160 |  | 42,380,070 |  | 36,679,074 | 116\% | 17.33\% | 15.00\% |
| 4 | 5,757 |  | 293,856,953 |  | 53,580,628 |  | 44,078,543 | 122\% | 18.23\% | 15.00\% |
| 5 | 5,893 |  | 366,028,615 |  | 60,373,148 |  | 54,904,292 | 110\% | 16.49\% | 15.00\% |
| 6 | 5,635 |  | 400,266,990 |  | 72,920,953 |  | 60,040,049 | 121\% | 18.22\% | 15.00\% |
| 7 | 5,422 |  | 393,088,909 |  | 76,613,962 |  | 58,963,336 | 130\% | 19.49\% | 15.00\% |
| 8 | 5,209 |  | 380,900,418 |  | 73,749,110 |  | 57,135,063 | 129\% | 19.36\% | 15.00\% |
| 9 | 4,967 |  | 366,131,023 |  | 71,015,611 |  | 54,919,654 | 129\% | 19.40\% | 15.00\% |
| 10 | 4,614 |  | 342,316,077 |  | 67,170,009 |  | 51,347,411 | 131\% | 19.62\% | 15.00\% |
| 11 | 4,089 |  | 308,755,827 |  | 59,219,527 |  | 46,313,374 | 128\% | 19.18\% | 15.00\% |
| 12 | 3,867 |  | 293,771,675 |  | 56,764,665 |  | 44,065,751 | 129\% | 19.32\% | 15.00\% |
| 13 | 3,975 |  | 303,005,414 |  | 60,919,783 |  | 45,450,812 | 134\% | 20.11\% | 15.00\% |
| 14 | 3,671 |  | 282,591,026 |  | 55,069,371 |  | 42,388,654 | 130\% | 19.49\% | 15.00\% |
| 15 | 3,374 |  | 265,835,172 |  | 51,050,552 |  | 39,875,276 | 128\% | 19.20\% | 15.00\% |
| 16 | 3,263 |  | 262,255,486 |  | 53,576,363 |  | 39,338,323 | 136\% | 20.43\% | 15.00\% |
| 17 | 3,136 |  | 251,376,647 |  | 51,911,588 |  | 37,706,497 | 138\% | 20.65\% | 15.00\% |
| 18 | 3,079 |  | 244,266,383 |  | 51,075,782 |  | 39,082,621 | 131\% | 20.91\% | 16.00\% |
| 19 | 2,919 |  | 231,223,215 |  | 50,072,448 |  | 39,307,946 | 127\% | 21.66\% | 17.00\% |
| 20 | 2,475 |  | 196,671,883 |  | 43,373,308 |  | 35,400,939 | 123\% | 22.05\% | 18.00\% |
| 21 | 2,414 |  | 197,464,650 |  | 44,977,171 |  | 33,568,990 | 134\% | 22.78\% | 17.00\% |
| 22 | 2,258 |  | 184,357,430 |  | 41,920,761 |  | 29,497,189 | 142\% | 22.74\% | 16.00\% |
| 23 | 1,837 |  | 153,128,233 |  | 34,489,312 |  | 22,969,235 | 150\% | 22.52\% | 15.00\% |
| 24 | 1,670 |  | 141,681,530 |  | 32,187,571 |  | 19,835,414 | 162\% | 22.72\% | 14.00\% |
| 25 | 1,459 |  | 127,069,448 |  | 28,613,065 |  | 16,519,028 | 173\% | 22.52\% | 13.00\% |
| 26 | 1,229 |  | 110,567,167 |  | 24,354,091 |  | 13,268,060 | 184\% | 22.03\% | 12.00\% |
| 27 | 985 |  | 91,908,632 |  | 20,338,799 |  | 10,109,950 | 201\% | 22.13\% | 11.00\% |
| 28 | 748 |  | 71,612,964 |  | 15,653,372 |  | 7,161,296 | 219\% | 21.86\% | 10.00\% |
| 29 | 576 |  | 56,573,983 |  | 12,457,798 |  | 5,091,658 | 245\% | 22.02\% | 9.00\% |
| 30 | 431 |  | 42,518,891 |  | 9,593,083 |  | 3,401,511 | 282\% | 22.56\% | 8.00\% |
| 31 | 289 |  | 29,744,927 |  | 6,578,742 |  | 2,082,145 | 316\% | 22.12\% | 7.00\% |
| 32 | 186 |  | 19,414,296 |  | 4,288,021 |  | 1,164,858 | 368\% | 22.09\% | 6.00\% |
| 33 | 146 |  | 15,214,335 |  | 3,732,717 |  | 760,717 | 491\% | 24.53\% | 5.00\% |
| 34 | 95 |  | 9,472,520 |  | 2,298,259 |  | 473,626 | 485\% | 24.26\% | 5.00\% |
| 35 | 58 |  | 5,575,170 |  | 1,048,063 |  | 278,759 | 376\% | 18.80\% | 5.00\% |
| 36 | 46 |  | 4,323,235 |  | 795,138 |  | 216,162 | 368\% | 18.39\% | 5.00\% |
| 37 | 33 |  | 3,137,224 |  | 641,320 |  | 156,861 | 409\% | 20.44\% | 5.00\% |
| 38 | 26 |  | 2,486,812 |  | 532,873 |  | 124,341 | 429\% | 21.43\% | 5.00\% |
| 39 | 21 |  | 2,005,050 |  | 435,954 |  | 100,252 | 435\% | 21.74\% | 5.00\% |
| 40 | 11 |  | 1,018,650 |  | 193,747 |  | 50,933 | 380\% | 19.02\% | 5.00\% |
| 41 | 6 |  | 608,465 |  | 110,382 |  | 30,423 | 363\% | 18.14\% | 5.00\% |
| 42 | 5 |  | 494,884 |  | 113,224 |  | 24,744 | 458\% | 22.88\% | 5.00\% |
| 43 | 1 |  | 123,075 |  | 9,306 |  | 6,154 | 151\% | 7.56\% | 5.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 5.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 5.00\% |
| Total | 102,286 |  | 138,795,270 |  | 94,598,043 |  | ,060,103,645 | 132\% | 19.54\% | 14.85\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND <br> OVERTIME PAY EXPERIENCE FOR ALL YEARS MEN AND WOMEN

TABLE 10A

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 1,808 | \$ | 62,871,673 | \$ | 3,164,614 | \$ | 10,688,184 | 30\% | 5.03\% | 17.00\% |
| 1 | 4,468 |  | 171,141,581 |  | 21,196,477 |  | 29,094,069 | 73\% | 12.39\% | 17.00\% |
| 2 | 4,906 |  | 207,411,572 |  | 34,037,305 |  | 35,259,967 | 97\% | 16.41\% | 17.00\% |
| 3 | 5,229 |  | 244,527,160 |  | 42,380,070 |  | 41,569,617 | 102\% | 17.33\% | 17.00\% |
| 4 | 5,757 |  | 293,856,953 |  | 53,580,628 |  | 49,955,682 | 107\% | 18.23\% | 17.00\% |
| 5 | 5,893 |  | 366,028,615 |  | 60,373,148 |  | 62,224,865 | 97\% | 16.49\% | 17.00\% |
| 6 | 5,635 |  | 400,266,990 |  | 72,920,953 |  | 68,045,388 | 107\% | 18.22\% | 17.00\% |
| 7 | 5,422 |  | 393,088,909 |  | 76,613,962 |  | 66,825,114 | 115\% | 19.49\% | 17.00\% |
| 8 | 5,209 |  | 380,900,418 |  | 73,749,110 |  | 64,753,071 | 114\% | 19.36\% | 17.00\% |
| 9 | 4,967 |  | 366,131,023 |  | 71,015,611 |  | 62,242,274 | 114\% | 19.40\% | 17.00\% |
| 10 | 4,614 |  | 342,316,077 |  | 67,170,009 |  | 58,193,733 | 115\% | 19.62\% | 17.00\% |
| 11 | 4,089 |  | 308,755,827 |  | 59,219,527 |  | 52,488,491 | 113\% | 19.18\% | 17.00\% |
| 12 | 3,867 |  | 293,771,675 |  | 56,764,665 |  | 49,941,185 | 114\% | 19.32\% | 17.00\% |
| 13 | 3,975 |  | 303,005,414 |  | 60,919,783 |  | 51,510,920 | 118\% | 20.11\% | 17.00\% |
| 14 | 3,671 |  | 282,591,026 |  | 55,069,371 |  | 48,040,474 | 115\% | 19.49\% | 17.00\% |
| 15 | 3,374 |  | 265,835,172 |  | 51,050,552 |  | 45,191,979 | 113\% | 19.20\% | 17.00\% |
| 16 | 3,263 |  | 262,255,486 |  | 53,576,363 |  | 44,583,433 | 120\% | 20.43\% | 17.00\% |
| 17 | 3,136 |  | 251,376,647 |  | 51,911,588 |  | 42,734,030 | 121\% | 20.65\% | 17.00\% |
| 18 | 3,079 |  | 244,266,383 |  | 51,075,782 |  | 41,525,285 | 123\% | 20.91\% | 17.00\% |
| 19 | 2,919 |  | 231,223,215 |  | 50,072,448 |  | 39,307,946 | 127\% | 21.66\% | 17.00\% |
| 20 | 2,475 |  | 196,671,883 |  | 43,373,308 |  | 33,434,220 | 130\% | 22.05\% | 17.00\% |
| 21 | 2,414 |  | 197,464,650 |  | 44,977,171 |  | 33,568,990 | 134\% | 22.78\% | 17.00\% |
| 22 | 2,258 |  | 184,357,430 |  | 41,920,761 |  | 31,340,763 | 134\% | 22.74\% | 17.00\% |
| 23 | 1,837 |  | 153,128,233 |  | 34,489,312 |  | 26,031,800 | 132\% | 22.52\% | 17.00\% |
| 24 | 1,670 |  | 141,681,530 |  | 32,187,571 |  | 24,085,860 | 134\% | 22.72\% | 17.00\% |
| 25 | 1,459 |  | 127,069,448 |  | 28,613,065 |  | 21,601,806 | 132\% | 22.52\% | 17.00\% |
| 26 | 1,229 |  | 110,567,167 |  | 24,354,091 |  | 18,796,418 | 130\% | 22.03\% | 17.00\% |
| 27 | 985 |  | 91,908,632 |  | 20,338,799 |  | 15,624,468 | 130\% | 22.13\% | 17.00\% |
| 28 | 748 |  | 71,612,964 |  | 15,653,372 |  | 12,174,204 | 129\% | 21.86\% | 17.00\% |
| 29 | 576 |  | 56,573,983 |  | 12,457,798 |  | 9,617,577 | 130\% | 22.02\% | 17.00\% |
| 30 | 431 |  | 42,518,891 |  | 9,593,083 |  | 7,228,211 | 133\% | 22.56\% | 17.00\% |
| 31 | 289 |  | 29,744,927 |  | 6,578,742 |  | 5,056,638 | 130\% | 22.12\% | 17.00\% |
| 32 | 186 |  | 19,414,296 |  | 4,288,021 |  | 3,300,430 | 130\% | 22.09\% | 17.00\% |
| 33 | 146 |  | 15,214,335 |  | 3,732,717 |  | 2,586,437 | 144\% | 24.53\% | 17.00\% |
| 34 | 95 |  | 9,472,520 |  | 2,298,259 |  | 1,610,328 | 143\% | 24.26\% | 17.00\% |
| 35 | 58 |  | 5,575,170 |  | 1,048,063 |  | 947,779 | 111\% | 18.80\% | 17.00\% |
| 36 | 46 |  | 4,323,235 |  | 795,138 |  | 734,950 | 108\% | 18.39\% | 17.00\% |
| 37 | 33 |  | 3,137,224 |  | 641,320 |  | 533,328 | 120\% | 20.44\% | 17.00\% |
| 38 | 26 |  | 2,486,812 |  | 532,873 |  | 422,758 | 126\% | 21.43\% | 17.00\% |
| 39 | 21 |  | 2,005,050 |  | 435,954 |  | 340,858 | 128\% | 21.74\% | 17.00\% |
| 40 | 11 |  | 1,018,650 |  | 193,747 |  | 173,171 | 112\% | 19.02\% | 17.00\% |
| 41 | 6 |  | 608,465 |  | 110,382 |  | 103,439 | 107\% | 18.14\% | 17.00\% |
| 42 | 5 |  | 494,884 |  | 113,224 |  | 84,130 | 135\% | 22.88\% | 17.00\% |
| 43 | 1 |  | 123,075 |  | 9,306 |  | 20,923 | 44\% | 7.56\% | 17.00\% |
| 44 | 0 |  | 0 |  | - |  | - |  |  | 17.00\% |
| 45 | 0 |  | 0 |  | - |  | - |  |  | 17.00\% |
| Total | 102,286 |  | 7,138,795,270 |  | 394,598,043 |  | 213,595,196 | 115\% | 19.54\% | 17.00\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND OVERTIME PAY EXPERIENCE BEFORE SERVICE RETIREMENT MEN AND WOMEN

TABLE 10B 10-YEAR PERIOD ENDING 6/30/2013

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  |  | 16.00\% |
| 1 | 0 |  | - |  | - |  | - |  |  | 16.00\% |
| 2 | 0 |  | - |  | - |  | - |  |  | 16.00\% |
| 3 | 0 |  | - |  | - |  | - |  |  | 16.00\% |
| 4 | 0 |  | - |  | - |  | - |  |  | 16.00\% |
| 5 | 0 |  | - |  | - |  | - |  |  | 16.00\% |
| 6 | 0 |  | - |  | - |  | - |  |  | 16.00\% |
| 7 | 0 |  | - |  | - |  | - |  |  | 16.00\% |
| 8 | 0 |  | - |  | - |  | - |  |  | 16.00\% |
| 9 | 0 |  | - |  | - |  | - |  |  | 16.00\% |
| 10 | 0 |  | - |  | - |  | - |  |  | 16.00\% |
| 11 | 0 |  | - |  | - |  | - |  |  | 16.00\% |
| 12 | 0 |  | - |  | - |  | - |  |  | 16.00\% |
| 13 | 0 |  | - |  | - |  | - |  |  | 16.00\% |
| 14 | 0 |  | - |  | - |  | - |  |  | 17.00\% |
| 15 | 0 |  | - |  | - |  | - |  |  | 18.00\% |
| 16 | 0 |  | - |  | - |  | - |  |  | 19.00\% |
| 17 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 18 | 0 |  | - |  | - |  | - |  |  | 21.00\% |
| 19 | 0 |  | - |  | - |  | - |  |  | 22.00\% |
| 20 | 276 | \$ | 17,938,408 | \$ | 6,338,985 | \$ | 4,125,834 | 154\% | 35.34\% | 23.00\% |
| 21 | 59 |  | 4,121,650 |  | 1,379,078 |  | 906,763 | 152\% | 33.46\% | 22.00\% |
| 22 | 60 |  | 4,450,167 |  | 1,618,655 |  | 934,535 | 173\% | 36.37\% | 21.00\% |
| 23 | 24 |  | 1,785,459 |  | 481,597 |  | 357,092 | 135\% | 26.97\% | 20.00\% |
| 24 | 50 |  | 3,602,512 |  | 1,047,239 |  | 684,477 | 153\% | 29.07\% | 19.00\% |
| 25 | 69 |  | 5,356,900 |  | 1,501,329 |  | 964,242 | 156\% | 28.03\% | 18.00\% |
| 26 | 47 |  | 3,703,635 |  | 1,120,502 |  | 592,582 | 189\% | 30.25\% | 16.00\% |
| 27 | 32 |  | 2,797,226 |  | 716,174 |  | 391,612 | 183\% | 25.60\% | 14.00\% |
| 28 | 23 |  | 2,007,903 |  | 488,386 |  | 240,948 | 203\% | 24.32\% | 12.00\% |
| 29 | 30 |  | 2,827,286 |  | 615,754 |  | 311,001 | 198\% | 21.78\% | 11.00\% |
| 30 | 25 |  | 2,104,333 |  | 533,700 |  | 210,433 | 254\% | 25.36\% | 10.00\% |
| 31 | 24 |  | 2,446,502 |  | 576,305 |  | 220,185 | 262\% | 23.56\% | 9.00\% |
| 32 | 11 |  | 1,010,449 |  | 276,216 |  | 80,836 | 342\% | 27.34\% | 8.00\% |
| 33 | 11 |  | 1,112,192 |  | 232,546 |  | 77,853 | 299\% | 20.91\% | 7.00\% |
| 34 | 4 |  | 398,275 |  | 141,471 |  | 23,896 | 592\% | 35.52\% | 6.00\% |
| 35 | 10 |  | 935,285 |  | 222,277 |  | 56,117 | 396\% | 23.77\% | 6.00\% |
| 36 | 3 |  | 226,199 |  | 51,532 |  | 13,572 | 380\% | 22.78\% | 6.00\% |
| 37 | 5 |  | 426,856 |  | 92,179 |  | 25,611 | 360\% | 21.59\% | 6.00\% |
| 38 | 3 |  | 271,565 |  | 102,705 |  | 16,294 | 630\% | 37.82\% | 6.00\% |
| 39 | 2 |  | 249,857 |  | 52,933 |  | 14,991 | 353\% | 21.19\% | 6.00\% |
| 40 | 2 |  | 161,662 |  | 48,324 |  | 9,700 | 498\% | 29.89\% | 6.00\% |
| 41 | 1 |  | 80,284 |  | 18,924 |  | 4,817 | 393\% | 23.57\% | 6.00\% |
| 42 | 0 |  | - |  | - |  | - |  |  | 6.00\% |
| 43 | 0 |  | - |  | - |  | - |  |  | 6.00\% |
| 44 | 1 |  | 114,386 |  | 17,515 |  | 6,863 | 255\% | 15.31\% | 6.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 6.00\% |
| Total | 772 |  | 58,128,989 |  | 17,674,326 |  | 10,270,256 | 172\% | 30.41\% | 17.67\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND OVERTIME PAY EXPERIENCE BEFORE SERVICE RETIREMENT MEN AND WOMEN

| Service | TABLE 10B |  |  |  |  |  |  | 10-YEAR PERIOD ENDING 6/30/2013 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual / <br> Proposed | Increase \% |  |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  |  | 24.00\% |
| 1 | 0 |  | - |  | - |  | - |  |  | 24.00\% |
| 2 | 0 |  | - |  | - |  | - |  |  | 24.00\% |
| 3 | 0 |  | - |  | - |  | - |  |  | 24.00\% |
| 4 | 0 |  | - |  | - |  | - |  |  | 24.00\% |
| 5 | 0 |  | - |  | - |  | - |  |  | 24.00\% |
| 6 | 0 |  | - |  | - |  | - |  |  | 24.00\% |
| 7 | 0 |  | - |  | - |  | - |  |  | 24.00\% |
| 8 | 0 |  | - |  | - |  | - |  |  | 24.00\% |
| 9 | 0 |  | - |  | - |  | - |  |  | 24.00\% |
| 10 | 0 |  | - |  | - |  | - |  |  | 24.00\% |
| 11 | 0 |  | - |  | - |  | - |  |  | 24.00\% |
| 12 | 0 |  | - |  | - |  | - |  |  | 24.00\% |
| 13 | 0 |  | - |  | - |  | - |  |  | 24.00\% |
| 14 | 0 |  | - |  | - |  | - |  |  | 24.00\% |
| 15 | 0 |  | - |  | - |  | - |  |  | 24.00\% |
| 16 | 0 |  | - |  | - |  | - |  |  | 24.00\% |
| 17 | 0 |  | - |  | - |  | - |  |  | 24.00\% |
| 18 | 0 |  | - |  | - |  | - |  |  | 24.00\% |
| 19 | 0 |  | - |  | - |  | - |  |  | 24.00\% |
| 20 | 276 | \$ | 17,938,408 | \$ | 6,338,985 | \$ | 4,305,218 | 147\% | 35.34\% | 24.00\% |
| 21 | 59 |  | 4,121,650 |  | 1,379,078 |  | 989,196 | 139\% | 33.46\% | 24.00\% |
| 22 | 60 |  | 4,450,167 |  | 1,618,655 |  | 1,068,040 | 152\% | 36.37\% | 24.00\% |
| 23 | 24 |  | 1,785,459 |  | 481,597 |  | 428,510 | 112\% | 26.97\% | 24.00\% |
| 24 | 50 |  | 3,602,512 |  | 1,047,239 |  | 864,603 | 121\% | 29.07\% | 24.00\% |
| 25 | 69 |  | 5,356,900 |  | 1,501,329 |  | 1,285,656 | 117\% | 28.03\% | 24.00\% |
| 26 | 47 |  | 3,703,635 |  | 1,120,502 |  | 888,872 | 126\% | 30.25\% | 24.00\% |
| 27 | 32 |  | 2,797,226 |  | 716,174 |  | 671,334 | 107\% | 25.60\% | 24.00\% |
| 28 | 23 |  | 2,007,903 |  | 488,386 |  | 481,897 | 101\% | 24.32\% | 24.00\% |
| 29 | 30 |  | 2,827,286 |  | 615,754 |  | 678,549 | 91\% | 21.78\% | 24.00\% |
| 30 | 25 |  | 2,104,333 |  | 533,700 |  | 505,040 | 106\% | 25.36\% | 24.00\% |
| 31 | 24 |  | 2,446,502 |  | 576,305 |  | 587,160 | 98\% | 23.56\% | 24.00\% |
| 32 | 11 |  | 1,010,449 |  | 276,216 |  | 242,508 | 114\% | 27.34\% | 24.00\% |
| 33 | 11 |  | 1,112,192 |  | 232,546 |  | 266,926 | 87\% | 20.91\% | 24.00\% |
| 34 | 4 |  | 398,275 |  | 141,471 |  | 95,586 | 148\% | 35.52\% | 24.00\% |
| 35 | 10 |  | 935,285 |  | 222,277 |  | 224,468 | 99\% | 23.77\% | 24.00\% |
| 36 | 3 |  | 226,199 |  | 51,532 |  | 54,288 | 95\% | 22.78\% | 24.00\% |
| 37 | 5 |  | 426,856 |  | 92,179 |  | 102,445 | 90\% | 21.59\% | 24.00\% |
| 38 | 3 |  | 271,565 |  | 102,705 |  | 65,176 | 158\% | 37.82\% | 24.00\% |
| 39 | 2 |  | 249,857 |  | 52,933 |  | 59,966 | 88\% | 21.19\% | 24.00\% |
| 40 | 2 |  | 161,662 |  | 48,324 |  | 38,799 | 125\% | 29.89\% | 24.00\% |
| 41 | 1 |  | 80,284 |  | 18,924 |  | 19,268 | 98\% | 23.57\% | 24.00\% |
| 42 | 0 |  | - |  | - |  | - |  |  | 24.00\% |
| 43 | 0 |  | - |  | - |  | - |  |  | 24.00\% |
| 44 | 1 |  | 114,386 |  | 17,515 |  | 27,453 | 64\% | 15.31\% | 24.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 24.00\% |
| Total | 772 |  | 58,128,989 |  | 17,674,326 |  | 13,950,957 | 127\% | 30.41\% | 24.00\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND OVERTIME PAY EXPERIENCE BEFORE DISABLED RETIREMENT MEN AND WOMEN

TABLE 10C

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Expected Overtime |  | Actual / <br> Expected | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Expected \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 1 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 2 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 3 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 4 | 0 |  | - |  | - |  | - |  |  | 15.00\% |
| 5 | 35 | \$ | 1,842,870 | \$ | 315,387 | \$ | 276,430 | 114\% | 17.11\% | 15.00\% |
| 6 | 43 |  | 2,889,880 |  | 558,393 |  | 433,482 | 129\% | 19.32\% | 15.00\% |
| 7 | 53 |  | 3,610,194 |  | 705,496 |  | 541,529 | 130\% | 19.54\% | 15.00\% |
| 8 | 57 |  | 3,787,324 |  | 734,745 |  | 568,099 | 129\% | 19.40\% | 15.00\% |
| 9 | 82 |  | 5,776,551 |  | 1,173,261 |  | 866,483 | 135\% | 20.31\% | 15.00\% |
| 10 | 107 |  | 7,582,849 |  | 1,562,481 |  | 1,137,427 | 137\% | 20.61\% | 15.00\% |
| 11 | 81 |  | 5,823,929 |  | 1,239,224 |  | 873,589 | 142\% | 21.28\% | 15.00\% |
| 12 | 107 |  | 7,946,515 |  | 1,596,510 |  | 1,191,977 | 134\% | 20.09\% | 15.00\% |
| 13 | 119 |  | 9,028,347 |  | 1,801,064 |  | 1,354,252 | 133\% | 19.95\% | 15.00\% |
| 14 | 119 |  | 8,819,926 |  | 1,828,489 |  | 1,322,989 | 138\% | 20.73\% | 15.00\% |
| 15 | 120 |  | 8,801,991 |  | 1,602,601 |  | 1,320,299 | 121\% | 18.21\% | 15.00\% |
| 16 | 137 |  | 10,462,534 |  | 2,055,152 |  | 1,674,005 | 123\% | 19.64\% | 16.00\% |
| 17 | 122 |  | 9,311,989 |  | 1,956,224 |  | 1,583,038 | 124\% | 21.01\% | 17.00\% |
| 18 | 121 |  | 8,924,685 |  | 2,380,971 |  | 1,606,443 | 148\% | 26.68\% | 18.00\% |
| 19 | 200 |  | 14,093,560 |  | 3,640,031 |  | 2,677,776 | 136\% | 25.83\% | 19.00\% |
| 20 | 353 |  | 24,631,158 |  | 7,321,909 |  | 4,926,232 | 149\% | 29.73\% | 20.00\% |
| 21 | 193 |  | 14,740,688 |  | 3,705,281 |  | 2,800,731 | 132\% | 25.14\% | 19.00\% |
| 22 | 214 |  | 16,330,256 |  | 4,426,728 |  | 2,939,446 | 151\% | 27.11\% | 18.00\% |
| 23 | 159 |  | 12,379,882 |  | 3,142,822 |  | 2,104,580 | 149\% | 25.39\% | 17.00\% |
| 24 | 140 |  | 11,206,966 |  | 2,717,211 |  | 1,793,114 | 152\% | 24.25\% | 16.00\% |
| 25 | 145 |  | 12,282,174 |  | 3,203,405 |  | 1,842,326 | 174\% | 26.08\% | 15.00\% |
| 26 | 110 |  | 9,072,806 |  | 2,463,934 |  | 1,179,465 | 209\% | 27.16\% | 13.00\% |
| 27 | 94 |  | 8,551,510 |  | 2,220,620 |  | 940,666 | 236\% | 25.97\% | 11.00\% |
| 28 | 86 |  | 8,028,846 |  | 1,927,553 |  | 802,885 | 240\% | 24.01\% | 10.00\% |
| 29 | 67 |  | 6,345,386 |  | 1,420,072 |  | 571,085 | 249\% | 22.38\% | 9.00\% |
| 30 | 60 |  | 5,711,871 |  | 1,253,066 |  | 456,950 | 274\% | 21.94\% | 8.00\% |
| 31 | 39 |  | 3,770,010 |  | 910,859 |  | 263,901 | 345\% | 24.16\% | 7.00\% |
| 32 | 17 |  | 1,618,991 |  | 365,223 |  | 97,139 | 376\% | 22.56\% | 6.00\% |
| 33 | 19 |  | 1,689,284 |  | 463,361 |  | 84,464 | 549\% | 27.43\% | 5.00\% |
| 34 | 13 |  | 1,377,749 |  | 327,389 |  | 68,887 | 475\% | 23.76\% | 5.00\% |
| 35 | 9 |  | 810,326 |  | 252,882 |  | 40,516 | 624\% | 31.21\% | 5.00\% |
| 36 | 8 |  | 807,912 |  | 179,383 |  | 40,396 | 444\% | 22.20\% | 5.00\% |
| 37 | 4 |  | 444,473 |  | 50,476 |  | 22,224 | 227\% | 11.36\% | 5.00\% |
| 38 | 5 |  | 418,324 |  | 111,860 |  | 20,916 | 535\% | 26.74\% | 5.00\% |
| 39 | 4 |  | 347,210 |  | 83,698 |  | 17,360 | 482\% | 24.11\% | 5.00\% |
| 40 | 4 |  | 368,217 |  | 91,190 |  | 18,411 | 495\% | 24.77\% | 5.00\% |
| 41 | 5 |  | 491,662 |  | 127,024 |  | 24,583 | 517\% | 25.84\% | 5.00\% |
| 42 | 2 |  | 206,944 |  | 83,143 |  | 10,347 | 804\% | 40.18\% | 5.00\% |
| 43 | 3 |  | 302,628 |  | 97,401 |  | 15,131 | 644\% | 32.19\% | 5.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 5.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 5.00\% |
| Total | 3,256 |  | 250,638,414 |  | 60,096,519 |  | 38,509,575 | 156\% | 23.98\% | 15.36\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND OVERTIME PAY EXPERIENCE BEFORE DISABLED RETIREMENT MEN AND WOMEN

TABLE 10C

| Service | Life Years Exposed | Salary during the Year |  | Actual Overtime |  | Proposed Overtime |  | Actual / <br> Proposed | Increase \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Actual \% | Proposed \% |  |  |  |
| (1) | (2) |  | (3) |  |  |  | (4) |  | (5) | (6) | (7) | (8) |
| 0 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 1 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 2 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 3 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 4 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 5 | 35 | \$ | 1,842,870 | \$ | 315,387 | \$ | 368,574 | 86\% | 17.11\% | 20.00\% |
| 6 | 43 |  | 2,889,880 |  | 558,393 |  | 577,976 | 97\% | 19.32\% | 20.00\% |
| 7 | 53 |  | 3,610,194 |  | 705,496 |  | 722,039 | 98\% | 19.54\% | 20.00\% |
| 8 | 57 |  | 3,787,324 |  | 734,745 |  | 757,465 | 97\% | 19.40\% | 20.00\% |
| 9 | 82 |  | 5,776,551 |  | 1,173,261 |  | 1,155,310 | 102\% | 20.31\% | 20.00\% |
| 10 | 107 |  | 7,582,849 |  | 1,562,481 |  | 1,516,570 | 103\% | 20.61\% | 20.00\% |
| 11 | 81 |  | 5,823,929 |  | 1,239,224 |  | 1,164,786 | 106\% | 21.28\% | 20.00\% |
| 12 | 107 |  | 7,946,515 |  | 1,596,510 |  | 1,589,303 | 100\% | 20.09\% | 20.00\% |
| 13 | 119 |  | 9,028,347 |  | 1,801,064 |  | 1,805,669 | 100\% | 19.95\% | 20.00\% |
| 14 | 119 |  | 8,819,926 |  | 1,828,489 |  | 1,763,985 | 104\% | 20.73\% | 20.00\% |
| 15 | 120 |  | 8,801,991 |  | 1,602,601 |  | 1,760,398 | 91\% | 18.21\% | 20.00\% |
| 16 | 137 |  | 10,462,534 |  | 2,055,152 |  | 2,092,507 | 98\% | 19.64\% | 20.00\% |
| 17 | 122 |  | 9,311,989 |  | 1,956,224 |  | 1,862,398 | 105\% | 21.01\% | 20.00\% |
| 18 | 121 |  | 8,924,685 |  | 2,380,971 |  | 1,784,937 | 133\% | 26.68\% | 20.00\% |
| 19 | 200 |  | 14,093,560 |  | 3,640,031 |  | 2,818,712 | 129\% | 25.83\% | 20.00\% |
| 20 | 353 |  | 24,631,158 |  | 7,321,909 |  | 4,926,232 | 149\% | 29.73\% | 20.00\% |
| 21 | 193 |  | 14,740,688 |  | 3,705,281 |  | 2,948,138 | 126\% | 25.14\% | 20.00\% |
| 22 | 214 |  | 16,330,256 |  | 4,426,728 |  | 3,266,051 | 136\% | 27.11\% | 20.00\% |
| 23 | 159 |  | 12,379,882 |  | 3,142,822 |  | 2,475,976 | 127\% | 25.39\% | 20.00\% |
| 24 | 140 |  | 11,206,966 |  | 2,717,211 |  | 2,241,393 | 121\% | 24.25\% | 20.00\% |
| 25 | 145 |  | 12,282,174 |  | 3,203,405 |  | 2,456,435 | 130\% | 26.08\% | 20.00\% |
| 26 | 110 |  | 9,072,806 |  | 2,463,934 |  | 1,814,561 | 136\% | 27.16\% | 20.00\% |
| 27 | 94 |  | 8,551,510 |  | 2,220,620 |  | 1,710,302 | 130\% | 25.97\% | 20.00\% |
| 28 | 86 |  | 8,028,846 |  | 1,927,553 |  | 1,605,769 | 120\% | 24.01\% | 20.00\% |
| 29 | 67 |  | 6,345,386 |  | 1,420,072 |  | 1,269,077 | 112\% | 22.38\% | 20.00\% |
| 30 | 60 |  | 5,711,871 |  | 1,253,066 |  | 1,142,374 | 110\% | 21.94\% | 20.00\% |
| 31 | 39 |  | 3,770,010 |  | 910,859 |  | 754,002 | 121\% | 24.16\% | 20.00\% |
| 32 | 17 |  | 1,618,991 |  | 365,223 |  | 323,798 | 113\% | 22.56\% | 20.00\% |
| 33 | 19 |  | 1,689,284 |  | 463,361 |  | 337,857 | 137\% | 27.43\% | 20.00\% |
| 34 | 13 |  | 1,377,749 |  | 327,389 |  | 275,550 | 119\% | 23.76\% | 20.00\% |
| 35 | 9 |  | 810,326 |  | 252,882 |  | 162,065 | 156\% | 31.21\% | 20.00\% |
| 36 | 8 |  | 807,912 |  | 179,383 |  | 161,582 | 111\% | 22.20\% | 20.00\% |
| 37 | 4 |  | 444,473 |  | 50,476 |  | 88,895 | 57\% | 11.36\% | 20.00\% |
| 38 | 5 |  | 418,324 |  | 111,860 |  | 83,665 | 134\% | 26.74\% | 20.00\% |
| 39 | 4 |  | 347,210 |  | 83,698 |  | 69,442 | 121\% | 24.11\% | 20.00\% |
| 40 | 4 |  | 368,217 |  | 91,190 |  | 73,643 | 124\% | 24.77\% | 20.00\% |
| 41 | 5 |  | 491,662 |  | 127,024 |  | 98,332 | 129\% | 25.84\% | 20.00\% |
| 42 | 2 |  | 206,944 |  | 83,143 |  | 41,389 | 201\% | 40.18\% | 20.00\% |
| 43 | 3 |  | 302,628 |  | 97,401 |  | 60,526 | 161\% | 32.19\% | 20.00\% |
| 44 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| 45 | 0 |  | - |  | - |  | - |  |  | 20.00\% |
| Total | 3,256 |  | 250,638,414 |  | 60,096,519 |  | 50,127,683 | 120\% | 23.98\% | 20.00\% |

## NEW YORK CITY FIRE DEPARTMENT PENSION FUND OVERTIME PAY EXPERIENCE FOR ALL YEARS MEN AND WOMEN

| $\begin{aligned} & \text { Plan } \\ & \text { Year } \end{aligned}$ | TABLE 10D |  |  | Actual Overtime |  | Expected Overtime |  | 10-YEAR PERIOD ENDING 6/30/2013 Increase \% |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ending June 30, | Life Years Exposed | Salary during the Year |  |  |  | Actual / <br> Expected | Actual <br> (4) / (3) | Expected $(5) /(3)$ |
| (1) | (2) |  | (3) |  | (4) |  |  |  | (5) | (6) | (7) | (8) |
| 2004 | 9,968 | \$ | 527,263,469 | \$ | 133,933,546 | \$ | 79,960,956 | 167\% | 25.40\% | 15.17\% |
| 2005 | 10,173 |  | 592,395,712 |  | 114,528,120 |  | 89,528,653 | 128\% | 19.33\% | 15.11\% |
| 2006 | 10,206 |  | 615,471,236 |  | 115,689,705 |  | 92,537,404 | 125\% | 18.80\% | 15.04\% |
| 2007 | 10,505 |  | 638,557,450 |  | 137,307,671 |  | 95,410,556 | 144\% | 21.50\% | 14.94\% |
| 2008 | 10,611 |  | 665,323,558 |  | 122,928,547 |  | 98,862,277 | 124\% | 18.48\% | 14.86\% |
| 2009 | 10,712 |  | 732,399,270 |  | 120,580,397 |  | 108,438,078 | 111\% | 16.46\% | 14.81\% |
| 2010 | 10,626 |  | 755,346,039 |  | 113,073,078 |  | 111,541,100 | 101\% | 14.97\% | 14.77\% |
| 2011 | 10,207 |  | 866,453,712 |  | 142,716,271 |  | 127,618,094 | 112\% | 16.47\% | 14.73\% |
| 2012 | 9,828 |  | 881,344,471 |  | 181,116,947 |  | 129,528,888 | 140\% | 20.55\% | 14.70\% |
| 2013 | 9,450 |  | 864,240,353 |  | 212,723,761 |  | 126,677,639 | 168\% | 24.61\% | 14.66\% |
| Total | 102,286 |  | 7,138,795,270 |  | 1,394,598,043 |  | 1,060,103,645 | 132\% | 19.54\% | 14.85\% |


[^0]:    * The mortality decrements are determined by the member's status in the previous year. For example, a disability retiree's mortality decrement would be Disabled Mortality.

[^1]:    *The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 41.

[^2]:    -Current -_Actual ---Proposed

[^3]:    *The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 41.

[^4]:    *The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 41.

[^5]:    *The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 41

[^6]:    *The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 41

[^7]:    *The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 41

[^8]:    *The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 41.

[^9]:    *The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 40 .

[^10]:    Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

[^11]:    *The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 41.

[^12]:    *The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 41.

[^13]:    Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

[^14]:    *The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 41

[^15]:    *The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 41.

[^16]:    *The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 41.

[^17]:    *The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 41.

[^18]:    *The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 41.

[^19]:    *The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 41.

[^20]:    Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates

[^21]:    The rates for expected merit salary increases are based on actual rates of increase for total salary, adjusted for inflation of $2.43 \%$.
    Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

[^22]:    *The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 41.

[^23]:    *The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 41.

[^24]:    *The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 40 .

[^25]:    *The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 41.

[^26]:    *The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 41.

[^27]:    *The total exposures and actuals shown above include experience at all age ranges. I.e. ages under 40 .

[^28]:    Actual Merit Salary EOY was estimated using Total Salary BOY and expected merit increase rates.

